# INFLUENCE OF CELEBRITY ENDORSEMENTS IN FOOTWEAR INDUSTRY ON CONSUMER PREFERENCES

Thesis Submitted for the Award of the Degree of

## DOCTOR OF PHILOSOPHY in

Commerce

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LOVELY PROFESSIONAL UNIVERSITY, PUNJAB 2024

### **DECLARATION**

I, hereby declared that the presented work in the thesis entitled "Influence of Celebrity Endorsements in Footwear Industry on Consumer Preferences" in fulfilment of degree of **Doctor of Philosophy (Ph. D.)** is outcome of research work carried out by me under the supervision of Dr. Ajay Bamba, working as Professor, in the Mittal School of Business of Lovely Professional University, Punjab, India. In keeping with general practice of reporting scientific observations, due acknowledgements have been made whenever work described here has been based on findings of other investigator. This work has not been submitted in part or full to any other University or Institute for the award of any degree.

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### **CERTIFICATE**

This is to certify that the work reported in the Ph. D. thesis entitled "Influence of Celebrity Endorsements in Footwear Industry on Consumer Preferences" submitted in fulfillment of the requirement for the reward of degree of **Doctor of Philosophy** (**Ph.D.**) in the Mittal School of Business, is a research work carried out by Pranjal Jain, Registration No. 42000375, is bonafide record of his/her original work carried out under my supervision and that no part of thesis has been submitted for any other degree, diploma or equivalent course.

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#### **ABSTRACT**

Celebrity endorsements are effective advertisement tools to gain consumer attention and to increase brand visibility. Celebrity endorsers provide a competitive advantage to the brands over non celebrity endorsers, whose influence is relatively limited. Integration of celebrity endorsements in marketing mix is seen as a go-to strategy for successful advertising campaigns. However, existing academic studies do not expressly answer the psychological reason for the success or failure of a celebrity endorsement or the mechanism by which it shapes consumer opinion influencing their purchase decisions. While celebrity endorsements are particularly framed to enhance consumer attention, generate consumer interests, awareness, better perception of the brand by emotionally attaching the consumer with the brand and altering their behavior so as to comply with the directions of their preferred celebrity, however, the research gap exists in answering the questions "how this process of celebrity influence works at the individual level", "why does celebrity endorsements are able to influence some consumers positive and not others" and "is it solely the celebrity in the endorsement that is driving the immediate sale of the product"?

Neuroscientific studies try to answer these questions by evaluating that mirror neurons in the brain are activated when individuals observe someone else performing an action. Seeing a celebrity wearing a specific pair of shoes might trigger the activation of mirror neurons in the consumer mind, creating a sense of connection and desire to emulate the endorsed behavior. The brain processes brands similarly to how it processes personal relationships. Celebrity endorsements can influence brand perception, as consumers may subconsciously associate positive attributes of the celebrity with the endorsed footwear brand. Humans are social beings, and the brain is wired to seek social approval. When a celebrity endorses a product, it can tap into social influence mechanisms, affecting consumers' perceptions of what is socially desirable or acceptable in terms of footwear choices. Celebrity endorsements can enhance memory and recall. The brain tends to remember information better when it is associated with emotionally charged or personally relevant stimuli. Celebrities provide a face and personality to the product, making it more memorable. The brain processes visual information rapidly.

Celebrity endorsements often involve visual elements in advertisements and promotions. Therefore, understanding how the brain processes and responds to these visual stimuli can be crucial in designing effective marketing campaigns. Neuromarketing is an emerging field that explores the application of consumer neuroscience in the field of marketing. The primary goal is to bridge the gap between consumer intent and actual behavior, offering marketers insights into the factors influencing purchasing decisions. Understanding how consumers subconsciously respond to stimuli allows for the creation of tailored advertising content that speaks directly to their emotions, preferences, and desires. This targeted approach enhances the effectiveness of marketing campaigns but also provides a cost-effective means of allocation, ensuring that resources are directed precisely where they can yield the greatest impact. Despite the growing significance of neuromarketing and the widespread prevalence of celebrity endorsements in marketing practices, there is a limited availability in-depth research studies exploring these phenomena particularly for Indian scenario. While both fields have gained considerable traction globally, their specific implications and effectiveness in the Indian market remain relatively underexplored which is a major requirement of the industry today since celebrity endorsements involve significant financial allocation running in crores of rupees, absence of up-to-date empirical evidence providing scientific structuring of celebrity endorsements hinders the success ratio of such big campaigns.

The Indian footwear industry producing more than 2 billion pairs of footwear annually is the second largest footwear producer in the world. Approximately 75% of non-leather footwear industry's production is generated from small, and medium enterprises (SMEs) situated across tier 1, tier 2 and tier 3 cities like Agra, Ambur, Bahadurgarh, Kozhikode, Chennai, Delhi, Ernakulam, Faridabad, Jalandhar, Kanpur, Karnal, Kolkata, Ludhiana, Mumbai, Pune, Ranipet, Sonepat, Vaniyambadi. Renowned luxury footwear brands such as Armani, Bugatti, Cardin, Clarks, Coach, Cole Haan, Daniel Hechter, Ecco, Florsheim, Gucci, Hugo Boss, Johnston & Murphy, Louis Vuitton, Prada, Tommy Hilfiger, and Zara, either have their manufacturing operations based in these manufacturing hubs or procure raw materials from these clusters. Initiatives such as Atmanirbhar Bharat, Make in India and Startup India have ushered in a new era of expansion and growth for the industry. With a size of \$15.22 billion and employing more than 2 million workers, the footwear sector stands as one of the highest employing sectors contributing towards economic growth and advancement in the country. With the presence of major brands like Relaxo, Bata, Puma, Metro Shoes, Adidas,

Nike, Khadim India, Paragon, footwear industry has been actively integrating celebrity endorsements in its preferred marketing strategy. For instance, in 2017, Puma signed Rs. 110 crore deal with cricketer Virat Kohli for an eight-year contract period. MS Dhoni signed around Rs. 180 crore endorsements standing only second to brand preferred star Shahrukh Khan. Bata recently engaged actor Kartik Aryan as their brand ambassador who is reported to charge more than Rs. 15 lakhs per advertisement. Such magnitude of operations warrant calls for dedicated studies into what works and what does not work while framing, designing and releasing celebrity endorsements and what should be the principles that should be followed while selecting a celebrity for a footwear advertisement. A neuroscientific study can offer valuable insights that can be utilized to develop personalized marketing strategies. It can further assist in supporting the footwear industry endeavor in leveraging neuroscience related footwear attributes to recover premium pricing in intense competitive scenario.

This study is a comprehensive exploration into the dynamic interplay between celebrity endorsements and consumer preferences, focusing on neuroscience components of cognitive, affective, and conative attributes. The study adopts a mixed methods approach wherein Study1 employs consumer surveys and structural equation modeling (SEM) for hypothesis testing, while Study2 performs neuroscientific investigation using eye-tracking technology in a controlled laboratory yet naturalistic setting. The study was conducted in Delhi-NCR and focused on participants in the age group of 18 - 60 years. Appropriate reliability and validity checks were made and data was analyzed through structural equation modelling. The study reports that celebrity endorsements have a significant positive impact on conative attributes suggesting that celebrity endorsements have a positive impact on consumer purchase intention. This implies that when a consumer comes in touch with a sponsored advertisement, the consumer is positively inclined towards purchasing the product. It was found that celebrity endorsements have insignificant impact upon the cognitive and affective attributes which is a major enrichment to the literature. Majority of the previous studies such as Yoo et al., (2018), Dwivedi et al., (2015) etc. have examined conative attributes mostly from the perspective of purchase intention and loyalty. However, the study's findings on the effect of celebrity endorsements on cognitive attributes, affective attributes and factors of conative attributes other than purchase intention and loyalty broadens the existing understanding about the impact of celebrity endorsements on consumer preferences making it an enriching contribution to the meta-analysis of Knoll and Matthes (2017) and Amos (2008).

Going to the specifics of the study, H1a, H1b and H1c hypothesized that the effect of celebrity endorsements on consumer preferences as measured through cognitive attributes, affective attributes and conative attributes is direct and positive. H1a asserts that the cognitive attributes of consumers, such as consumer beliefs, knowledge, and understanding of a product or brand, are positively affected by celebrity endorsements suggesting that consumers view celebrities as credible sources of information, and their endorsement enhance the perceived quality and reliability of the endorsed product thereby exhibiting increased consumer cognitive preference for the product. H1a implies that managers should leverage the credibility and expertise of celebrities for the success of their marketing campaigns. The findings of the study rejected H1a. Given the case that celebrity endorsements are rapidly spreading and consumers are surrounded by plethora of celebrity-based endorsements, their interest levels in viewing such endorsements on repeated basis may reduce, generating consumer indifference to celebrity endorsements. H1b suggests that the affective attributes of the consumer such as emotional responses, attitudes, and feelings toward a product are positively influenced by celebrity endorsements. It states that celebrities, often admired and respected figures, can evoke emotional connections and positive sentiments among consumers. This emotional appeal can lead to stronger brand loyalty and affinity. It views that emotional branding, capitalizing on the likability and relatability of celebrities, can be a strategy to build favorable consumer preferences towards the brand. H1b implies that managers should leverage the ability of celebrity endorsements to build an emotional association with the consumers for the success of their marketing campaigns. The findings of the study rejected H1b. This suggests that given the frequency of celebrity endorsements in footwear industry, mass availability of products and celebrities endorsing multiple products, consumers may not feel emotionally connected with the brand because of the celebrity endorsements. H1c focuses on conative attributes which involve the intention to act or make a decision regarding a product. It suggests that celebrity endorsements directly and positively affect consumer's behavioral intentions, such as purchasing or recommending the endorsed product. it views that celebrity endorsements can sway consumers to take specific actions, as they trust and admire the endorser thereby driving product sales. The study confirms H1c. By establishing that celebrity endorsements have a direct effect on the conative attributes of the consumer preferences, the study has implied that celebrity endorsements are effective marketing tools in driving product sales. The endorsements are able to survive through a magnitude of consumer cognitive and affective

inhibitions and are able to motivate the consumer into purchasing the product. However, the findings about the insignificant impact of celebrity endorsements on consumer cognition and affection towards the product highlights the paucity in the existing literature as seen through the theoretical model. It suggests that present advertisements are not able to strike with consumer sentiments in the long run. This explains the short survival of celebrity endorsements in consumer memory and the need to introduce innovative advertisements frequently and changing celebrity endorsers on periodic basis in line with market requirements and consumer sentiments.

H2a, H2b and H2c, evaluated the moderating influence of the age of the consumer on the effect of celebrity endorsements on cognitive attributes, affective attributes and conative attributes. H2a suggests that the impact of celebrity endorsements on cognitive attributes will be stronger amongst young age consumers than old age consumers. The study confirms H2a. This suggests that age of the consumer has significant influence on the effect of celebrity endorsements on cognitive attributes. H2b suggests that the impact of celebrity endorsements on affective attributes will be stronger amongst young age consumers than old age consumers. The study rejects H2b. This suggests that age of the consumer does not have significant influence on the effect of celebrity endorsements on affective attributes. H2c suggests that the impact of celebrity endorsements on conative attributes will be stronger amongst young age consumers than old age consumers. The study rejects H2c. This suggests that age of the consumer does not have significant influence on the effect of celebrity endorsements on conative attributes. Some of the reasons for such findings can be that cognitive attributes, encompassing knowledge and understanding, often involve more rational decision-making processes. Older consumers, having accumulated more life experience and knowledge, may prioritize these cognitive attributes when evaluating products or services. Celebrity endorsements may or may not have a notable effect on their cognitive processing depending upon the alignment with their preference for information and rational evaluation. Younger consumers, due to their developmental stage, may be more susceptible to external influences like celebrity endorsements. Their cognitive openness to new information can lead to a stronger impact on their cognitive attributes. While, older consumers might have already formed stable cognitive structures, making them less malleable in response to endorsements. Affective attributes, which are associated with emotional responses, and conative attributes, pertaining to behavioral intentions and actions, are typically more emotionally driven. Consumers, who

tend to seek emotional engagement and social identification, may be more responsive to the emotional appeal of celebrity endorsements. This emotional resonance could dilute the moderating effect of age on affective and conative attributes, resulting in the lack of statistical significance. However, generational differences could play a role in these findings. Younger generations have grown up in a media-rich environment where celebrities significantly influence their preferences, while older generations may rely on their accumulated knowledge and experience in decision-making. Further, targeted marketing strategies can accentuate the varying impact of celebrity endorsements on different attributes across age groups.

H3a, H3b and H3c, evaluated the moderating influence of the gender of the consumer on the effect of celebrity endorsements on cognitive attributes, affective attributes and conative attributes. H3a hypothesized that the impact of celebrity endorsements on cognitive attributes will be stronger among female consumers than among male consumers. The study rejects H3a. This implies that the study does not find significant moderation played by gender of the consumer on moderating the influence of celebrity endorsements on cognitive attributes. H3b hypothesized that the impact of celebrity endorsements on affective attributes will be stronger among female consumers than among male consumers. The study rejects H3b. This implies that the study does not find significant moderation played by gender of the consumer on moderating the influence of celebrity endorsements on affective attributes. H3c hypothesized that the impact of celebrity endorsements on conative attributes will be stronger among female consumers than among male consumers. The study confirms H3c. This implies that the study finds significant moderation played by gender of the consumer on moderating the influence of celebrity endorsements on conative attributes. Some of the reasons for the same could be that cognitive attributes primarily relate to the rational and knowledge-based aspects of consumer preferences. Gender-based differences in these attributes may be less pronounced compared to the emotional and behavioral dimensions. Thus, for cognitive attributes, both male and female consumers might engage in similar information processing and evaluation, resulting in a nonsignificant moderation effect. Affective attributes are closely tied to emotional responses. Gender, as a socio-cultural construct, can influence emotional expressions and the perception of emotions. However, the study did not find significant moderation on affective attributes, which might be due to the complex interplay of individual personality, cultural factors, and the specific context of the celebrity endorsements studied. Conative attributes, involving behavioral intentions and actions, are likely influenced by gender-related behavioral patterns

and social norms. For instance, societal expectations may shape how male and female consumers respond to celebrity endorsements in terms of their purchase intentions and actual behaviors. The influence of gender on conative attributes could be more noticeable because it reflects the societal dynamics that govern consumer choices.

H4a, H4b and H4c hypothesized that the knowledge about the ownership status of a brand has a positive effect on influencing the impact of celebrity endorsements on consumer preferences. H4a hypothesized that the impact of celebrity endorsements on cognitive attributes will be stronger with celebrity owned brands than company owned brands. The study confirms H4a. H4b hypothesized that the impact of celebrity endorsements on affective attributes will be stronger with celebrity owned brands than company owned brands. The study confirms H4b. H4c hypothesized that the impact of celebrity endorsements on conative attributes will be stronger with celebrity owned brands than company owned brands. The study confirms H4c. It was found that when the consumers are made aware about the ownership of a particular sponsored brand, the influencer of celebrity endorsement on cognitive, affective and conative attributes of such consumer are different from the effect on the consumer who was not provided with such information. This suggests that the consumer purchase behavior is moderated when the consumer comes in touch with information about whether the product is owned by the celebrity or owned by a company. Since, consumers associate celebrities with status and role models, purchasing a sponsored product which is owned by the celebrity gives them a feeling of being associated with their favorite celebrity. When a brand is directly owned by a celebrity, consumers often perceive a more authentic and vested connection between the endorser and the product. This perception arises from the belief that the celebrity has a genuine stake in the brand's success, aligning their personal reputation with the product's quality and appeal. Such endorsements may carry more weight and credibility among consumers. Third-party brands that secure celebrity endorsements may be viewed differently. Consumers may be more inclined to perceive these endorsements as marketing-driven, motivated primarily by financial considerations rather than a genuine belief in the product's merits. Skepticism may arise, particularly if the celebrity's connection to the brand appears tenuous or opportunistic. Therefore, the impact of such endorsements on consumer preferences may be more nuanced, with credibility and authenticity emerging as crucial determinants of effectiveness.

In conclusion, this research endeavors to fill critical gaps in the understanding of consumer preferences by evaluating the relatively less studied concepts of neuromarketing and celebrity endorsements. The scarcity of comprehensive studies in these areas provides the need to investigate how these influential marketing strategies operate within the unique sociocultural landscape of India. The results from this research offers insights into the subconscious responses of Indian consumers. By examining the intersection of consumer neuroscience and celebrity endorsements in Indian footwear industry, this research contributes to the academic understanding of these fields and provides practical implications for businesses to develop targeted marketing strategies. The findings are expected to assist marketers toward more effective and culturally sensitive advertising strategies, fostering stronger connections between brands and consumers while enriching the academic literature.

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### PRANJAL JAIN

### TABLE OF CONTENTS

Declaration	11
Certificate	iii
Abstract	iv
Acknowledgement	xii
CHAPTER 1	1
1.1 CONSUMER PREFERENCES AND CELEBRITY ENDORSEMENTS 1.2 INFLUENCE OF CELEBRITY ENDORSEMENTS ON CONSUMER PREFERENCES 1.3 NEUROMARKETING STUDIES 1.4 FOOTWEAR NEUROSCIENCE 1.5 MARKETING FOOTWEAR PRODUCT TECHNOLOGY 1.6 FOOTWEAR INDUSTRY IN INDIA 1.7 CHALLENGES OF INDIAN FOOTWEAR INDUSTRY 1.8 CELEBRITY ENDORSEMENTS IN FOOTWEAR INDUSTRY 1.9 RATIONALE FOR THE STUDY 1.10 AIMS AND OBJECTIVES OF THE STUDY 1.11 NEUROSCIENCE BASED CELEBRITY ENDORSEMENTS 1.11.1 ADVANTAGES OF NEUROSCIENCE BASED CELEBRITY ENDORSEMENTS 1.11.2 LIMITATIONS OF NEUROSCIENCE BASED CELEBRITY ENDORSEMENTS 1.11.2 SYNOPSIS OF THE CHAPTERS	2 4 7 9 14 17 23 28 34 37 39 39 44 50
CHAPTER 2	52
2.1 FOOTWEAR  2.2 CELEBRITY ENDORSEMENTS  2.2.1 CELEBRITY ATTACHMENT  2.2.2 PARASOCIAL INFLUENCE  2.2.3 DUAL ENTERTAINMENT PATH MODEL  2.2.4 ELABORATION LIKELIHOOD MODEL (ELM)  2.2.5 SOURCE ATTRACTIVENESS MODEL  2.2.6 SOURCE CREDIBILITY MODEL  2.2.7 MATCH-UP HYPOTHESIS  2.2.8 MEANING TRANSFER MODEL  2.3 NEUROMARKETING  2.3.1 SCHEME THEORY  2.3.2 EYE TRACKING STUDIES  2.3.3 ELECTROENCEPHALOGRAPHY (EEG)  2.3.4 IMPLICIT ASSOCIATION TESTING  2.3.5 FACIAL CODING  2.3.6 GALVANIC SKIN RESPONSE (GSR)  2.4 NEUROSCIENCE COMPONENTS OF CONSUMER PREFERENCES	53 57 58 60 61 62 64 68 70 71 73 74 76 79 83 84 86
2.4.1 COGNITIVE ATTRIBUTES OF CONSUMER NEUROSCIENCE 2.4.1.1 Attention	89 89

2.4.1.2 Memory	90
2.4.1.3 Awareness	91
2.4.1.4 Perception	93
2.4.1.5 Recall	94
2.4.2 AFFECTIVE ATTRIBUTES OF CONSUMER NEUROSCIENCE	95
2.4.2.1 Emotions	96
2.4.2.2 Attitude	97
2.4.2.3 Love for the brand	98
2.4.2.4 Sentiments	99
2.4.2.5 Affection	100
2.4.3 CONATIVE ATTRIBUTES OF CONSUMER NEUROSCIENCE	102
2.4.3.1 Purchase intention	102
2.4.3.2 Loyalty	104
2.3.3.3 Engagement	105
2.4.3.4 Recommendation	106
2.5 Moderators	108
2.5.1 Consumer's age	108
2.5.2 Consumer's gender	109
2.5.3 OWNERSHIP STATUS OF THE BRAND	110
	110
CHADTED 2	110
CHAPTER 3	112
3.1 Introduction	112
3.2 RESEARCH DESIGN	113
3.3 METHODOLOGY FOR STUDY1 (STRUCTURAL EQUATION MODELLING)	115
3.3.1 SAMPLING DESIGN	115
3.3.2 SAMPLING FRAME	116
3.3.3 SAMPLE SIZE	117
3.3.4 SAMPLING TECHNIQUE	118
3.3.5 Measurement scale	119
3.3.5.1 Attractiveness	120
3.3.5.2 Credibility	121
3.3.5.3 Celebrity product congruency	121
3.3.5.4 Cognitive attributes	122
3.3.5.5 Affective attributes	123
3.3.5.6 Conative attributes	123
3.4 Pre-test	125
3.5 METHODOLOGY FOR STUDY2 (EYE TRACKING ANALYSIS)	126
3.6 TEST OF RESEARCH BIAS	130
3.7 ETHICAL CONSIDERATIONS	131
CHAPTER 4	132
OIMM I LINT	132
4.1. Company (Company of the Company	100
4.1 STUDY1 (STRUCTURAL EQUATION MODELLING) RESULTS	132
4.1.1 VALIDITY AND RELIABILITY ANALYSIS	134
4.1.2 CONVERGENT VALIDITY	134
4.1.3 DISCRIMINANT VALIDITY	137
4.1.4 Nomological validity	138
4.1.5 Configural invariance	140

	METRIC INVARIANCE	140
	HYPOTHESIS TESTING	142
4.2	STUDY2 (EYE TRACKING ANALYSIS) RESULTS	148
<u>CHA</u>	APTER 5	155
5.1	MAJOR FINDINGS	155
5.1.1	FINDINGS RELATED WITH STUDYING THE "RELATIONSHIP OF CELEBRITY ENDORSEMENTS	
	IN FOOTWEAR INDUSTRY WITH CONSUMER PREFERENCES"	155
5.1.2	FINDINGS RELATED WITH STUDYING "THE MODERATION EFFECT OF DEMOGRAPHIC	
	VARIABLES (AGE AND GENDER)"	158
5.1.3	FINDINGS RELATED WITH STUDYING "THE MODERATION EFFECT OF OWNERSHIP STATUS"	162
5.2	THEORETICAL IMPLICATIONS	164
5.3	PRACTICAL IMPLICATIONS	169
5.3.1	STRATEGIC MARKETING DECISIONS	169
5.3.2	CONATIVE ATTRIBUTES LINKED PRODUCT CENTRIC MARKETING	170
5.3.3	TARGETED AGE-BASED STRATEGIES	171
5.3.4	GENDER SPECIFIC INFLUENCES	172
5.3.5	OWNERSHIP DYNAMICS	173
5.3.6	STRATEGIC RESOURCE ALLOCATION	174
5.3.7	INTEGRATION OF NEUROSCIENTIFIC CONTRIBUTIONS	174
5.3.8	PERSONALISED MARKETING STRATEGIES	175
5.4	RESEARCH LIMITATIONS	176
5.4.1	STUDY1 (STRUCTURAL EQUATION MODELLING) LIMITATIONS	176
5.4.2	STUDY2 (EYE TRACKING ANALYSIS) LIMITATIONS	178
5.5	CONCLUSION	179
<b>5.6</b>	SCOPE FOR FUTURE RESEARCH	183
5.6.1	LONGITUDINAL STUDIES	183
5.6.2	COMPARATIVE CROSS-INDUSTRY ANALYSIS	184
5.6.3	GLOBAL CULTURAL VARIANCES	185
5.6.4	INTEGRATION OF INFLUENCER MARKETING	185
5.6.5	NEURO-ANALYSIS OF CELEBRITY – BRAND FIT	186
5.6.6	INTEGRATION OF ADVANCED NEUROSCIENTIFIC TECHNOLOGIES	187
REF	ERENCES	188
<u>ANN</u>	VEXURE	213
	COF PUBLICATIONS	220

### LIST OF TABLES

Table 1.1	Footwear neuroscience-based innovations	16
Table 1.2	Retail sales and growth rate of some footwear brands in India	22
Table 1.3	Challenges faced by Indian footwear industry	24
Table 1.4	Celebrity proprietary brands	32
Table 3.1	Terminologies in eye-tracking analysis referred to in Study2	127
Table 4.1	Summary of the participants	132
Table 4.2	Convergent validity analysis	134
Table 4.3	Discriminant validity	137
Table 4.4	Model fit analysis	138
Table 4.5	Configural invariance measurement	140
Table 4.6	Metric invariance	141
Table 4.7	Mann-Whitney U test	143
Table 4.8	Common method bias test	143
Table 4.9	Hypothesis test results for H1a, H1b and H1c	144
Table 4.10	Moderation hypothesis test results	147
Table 4.11	Study2 (Eye tracking analysis) results	150

### LIST OF FIGURES

Figure 1.1	Impact of celebrity sponsored advertisements on sales	6
Figure 1.2	Footwear analytics framework based on neuroscience analysis	10
Figure 1.3	Science based footwear designing	11
Figure 1.4	Analytics based shoe redesign	12
Figure 1.5	Force applied to the foot during mid-stance phase of walking	13
Figure 1.6	Stress and Strain analysis of footwear product	13
Figure 1.7	Differential footwear product pricing	15
Figure 1.8	Celebrities with Nike Hyper Adapt	16
Figure 1.9	Traditional footwear patterns in India	17
Figure 1.10	Footwear market growth in India	18
Figure 1.11	Retail value of Indian footwear industry	19
Figure 1.12	Retail volume of Indian footwear industry	19
Figure 1.13	Footwear value chain development	20
Figure 1.14	Prominent footwear production hubs in India	21
Figure 1.15	Prominent footwear brands in India	23
Figure 1.16	Celebrity endorsements by actors	29
Figure 1.17	Celebrity endorsements by sports persons	30
Figure 1.18	Celebrity endorsements of celebrity proprietor brands	31
Figure 2.1	Early footwear designs	53
Figure 2.2	Development in primitive shoes to platform sandals	54
Figure 2.3	Usage of closed shoes	55
Figure 2.4	Footwear designs development till 19th century	56

Figure 2.5	Parasocial influence model	61
Figure 2.6	Source attributes model	67
Figure 2.7	Meaning Transfer Model	73
Figure 2.8	Illustration of an eye-tracking glass	77
Figure 2.9	Eye tracking study result formats	78
Figure 2.10	Eye fixation illustration of Nike logo	79
Figure 2.11	EEG matrix for neuro-advertising	81
Figure 2.12	EEG interpretation of consumer brain reflection	82
Figure 2.13	Facial coding metrics used by Kantar	85
Figure 2.14	Brain component approach to measure consumer preferences	87
Figure 2.15	Conceptual Framework	107
Figure 3.1	Delhi National Capital Region composition	116
Figure 3.2	Research framework	124
Figure 3.3	Research framework with moderators	125
Figure 4.1	Study1 (Structural equation modelling) results	145
Figure 4.2	Study2 (Eye tracking analysis) heat map results	149
Figure 4.3	Study2 results for measuring the influence of celebrity endorsements (1)	151
Figure 4.4	Study2 results for measuring the influence of celebrity endorsements (2)	152
Figure 4.5	Study2 results for measuring the influence of celebrity endorsements (3)	152
Figure 5.1	Improved advertising effectiveness model	165
Figure 5.2	Celebrity engagement model	168

### **CHAPTER 1**

### INTRODUCTION

Celebrity endorsements is the practice of leveraging the popularity, influence, and credibility of well-known personalities to promote a product, brand, or service (Argyris et al., 2023). This marketing strategy capitalizes on the celebrity's existing fame and appeal to enhance the visibility and marketability of the endorsed product. Celebrities, by virtue of their public personas and established careers, are frequently perceived as figures with inherent credibility (Bao and Chang, 2014). When these wellknown personalities choose to associate themselves with a particular product or brand, it inherently transfers a sense of trustworthiness to the endorsed entity. This is rooted in the belief that celebrities, owing to their public visibility and often positive public image, would only align themselves with products that meet a certain standard of quality or align with their personal values (Brooks et al., 2021). This transfer of credibility is a powerful mechanism in marketing, as consumers tend to trust endorsements from familiar and admired figures, fostering a sense of confidence in the endorsed brand (Kumar et al., 2023). The underlying assumption is that the celebrity endorser has carefully evaluated the product or service and is willing to stake their reputation on its merits, thereby providing consumers with a compelling reason to trust and engage with the endorsed brand.

The impact of celebrity endorsements on brand awareness is profound due to the extensive reach of celebrities' fan bases. The heightened exposure is a result of the multifaceted promotional avenues available to celebrities, including public appearances, social media engagement, interviews, and various other promotional activities (Palalic et al., 2020). The celebrity's endorsement effectively transforms the endorsed product into a focal point of public attention, as their fans, followers, and the broader audience become attuned to the endorsed brand through these diverse channels.

Whether through star-studded events, red carpet appearances, or the celebrity's active engagement on platforms like Instagram and Twitter, the product becomes ingrained in the public consciousness (Tian et al., 2023). This heightened visibility not only enhances the brand's recognition but also facilitates the penetration of marketing messages across diverse demographics, ultimately contributing to increased brand awareness and recall in the minds of consumers.

The endorsement of a product by a well-known figure goes beyond mere promotion; it serves as a powerful catalyst in shaping how consumers perceive and interact with the endorsed brand (Zhang et al., 2020). The persuasive impact lies in the ability of celebrities to inspire trust and admiration among their fan base. Consumers, drawn to the perceived lifestyle and values of these influential figures, often find themselves swayed to explore products that align with the celebrity endorser's image. The endorsement effectively transcends the product itself, creating a narrative where consumers associate the endorsed brand with the aspirational qualities embodied by the celebrity (Teeny et al., 2021). The influence extends to purchasing decisions, with consumers being more inclined to choose products that have garnered the approval of their favorite celebrities. The psychological connection between the celebrity's persona and the endorsed product becomes a compelling driver, prompting consumers to perceive the product as an extension of the celebrity's identity (Rietveld et al., 2020).

### 1.1 Consumer preferences and celebrity endorsements

Consumer preferences includes "the study of how individuals, groups, or organizations make decisions regarding the selection, purchase, use, or disposal of goods, services, ideas, or experiences to satisfy their needs and wants" (Onua et al 2019). This exploration involves the analysis of motivations, needs, perceptions, and learning experiences that shape consumer choices (Anuradha et al., 2023). Attitudes and beliefs, influenced by cultural and social factors, play a role in shaping preferences and purchasing decisions. The consumer decision-making process, involving stages like problem recognition, information search, and post-purchase behavior, offers a

structured framework for understanding how choices are made. Individual differences, encompassing personality, lifestyle, and demographics, contribute to the diversity in consumer behavior (McCormick 2016). Emotions and social influences, influenced by online and digital factors, add layers of complexity to the decision-making landscape. In the post-purchase phase, consumer satisfaction and feedback become critical for brand loyalty (Winterich et al 2018). Recognizing and evaluating consumer behavior is important for businesses to seek success in a competitive market landscape. This understanding guides businesses in the design and implementation of effective marketing strategies.

Celebrities, being prominent figures with significant public visibility, possess a unique ability to elicit strong emotions and admiration from their fan base (Döbele et al., 2007). When a celebrity aligns themselves with a specific product, consumers often experience a heightened emotional response, driven by their existing sentiments towards the celebrity (Heath, 2012). The act of a beloved celebrity endorsing a product creates a halo effect, where the positive emotions associated with the celebrity transfer onto the endorsed brand (Campbell and Warren, 2012). Fans, who may already have a deep emotional investment in the celebrity's persona, extend these sentiments to the associated product, establishing a positive and emotionally charged association (Ismagilova et al., 2020). This connection is not solely based on the features or utility of the product but is significantly influenced by the emotional bond consumers have with the endorsing celebrity (Erdogan, 1999). Such emotional connection can contribute to brand loyalty as consumers may develop a sense of allegiance to products endorsed by their favorite celebrities (Johansson and Bozan, 2017). The positive emotions stirred by the celebrity's endorsement become intertwined with the brand, fostering a lasting and meaningful connection that extends beyond the immediate purchase decision (Batra & Keller, 2016).

### 1.2 Influence of celebrity endorsements on consumer preferences

By evaluating the intricacies of consumer behavior, companies can tailor their messaging, advertising efforts, and overall marketing approaches to resonate more deeply with their target audience (Silva et al., 2023). This personalized and targeted strategy enhances the likelihood of capturing consumer attention, fostering brand engagement, and ultimately driving sales. A nuanced understanding of consumer behavior is further instrumental in refining and enhancing products and services (Kuvita and Karlíček, 2014). By assessing the preferences, needs, and expectations of consumers, businesses can innovate and adapt their offerings to align with market demands. This customer-centric approach ensures that products meet the evolving needs of the consumer base and also positions the business as responsive and attuned to market trends. Businesses that understand the motivations, values, and concerns of their clientele can establish connections that transcend mere transactions (Erfgen et al., 2015). Deeper level of understanding enables companies to anticipate customer needs, provide personalized experiences, and instill a sense of loyalty among their customer base.

Traditional research methods have long been used for understanding consumer behavior (Um & Kim, 2016). Such methods employ techniques such as surveys and focus groups to elicit responses regarding decision-making processes related to marketing stimuli (Knoll and Matthes, 2017). Surveys, with their structured questionnaires, offer a systematic approach to gathering quantitative data which allows examining opinions, preferences, and attitudes of consumers. Focus groups, introduces a qualitative dimension by facilitating group discussions where participants articulate their thoughts, providing nuanced insights into the social and cultural aspects influencing their decisions (Winterich et al 2018). Observational research takes a non-invasive approach to studying consumer behavior. By directly observing and recording actions in natural settings, this method offers a nuanced understanding of how individuals engage with products, services, or advertisements without relying on self-reporting (Lavidge & Steiner 1961). It provides real-world context, capturing authentic reactions and behaviors as they naturally unfold, and is particularly useful in contexts

where participants may not be fully aware they are being observed. In-depth interviews take a qualitative approach to consumer behavior exploration. These interviews examine deep into individual perspectives, motivations, and emotions, providing rich insights that may not surface through quantitative methods alone Gauns et al., 2018). Through open-ended questioning and a conversational approach, researchers can uncover the underlying factors that shape decision-making processes and preferences. In-depth interviews offer a personal and detailed exploration of the intricacies of consumer experiences, allowing for a more comprehensive understanding. Crosssectional studies provide a snapshot of consumer behavior at a specific point in time. By collecting data from a diverse group of participants simultaneously, researchers can identify correlations, patterns, and trends within a given timeframe (Adam & Hussain, 2017). This method is particularly useful for capturing a broad overview of consumer attitudes, preferences, or behaviors in a specific context. While it doesn't track changes over time like longitudinal studies, cross-sectional studies offer valuable insights into the simultaneous dynamics of various factors influencing consumer choices (Kaur & Garg, 2016).

The significance of these traditional methods lies in their versatility and accessibility. For instance, surveys, with their scalability, enable researchers to reach a broad audience, while focus groups facilitate in-depth exploration of consumer perceptions and motivations within a controlled setting (Bergkvist & Zhou 2016). By leveraging these techniques, researchers can gauge how individuals respond to advertising strategies, product features, or brand messaging, unraveling the cognitive and emotional dimensions that underlie consumer decision-making (Batra & Homer, 2004). However, a fundamental limitation of these methods lies in their reliance on self-reporting, which necessitates individuals to consciously articulate their thoughts and actions presenting a methodological challenge (Amos et al 2008). Figure 1.1 reflects the impact on sales of different ad campaigns. It depicts that while one fifth of advertisements fail to generate significant sale impacts, additional 20% actually have a detrimental effect, which bring a reduction in sale amount by 18%. 100% of the

advertisements which are not tested and prepared according to existing methods have the potential to perform better than the tested ones (Tim, 2019).

100%
75%
50%
25%
0%
-25%
0-20%
20-40%
40-60%
60-80%
80-100%
Ranking

**Figure 1.1.** Impact of celebrity sponsored advertisements on sales

*Source.* Tim (2019)

Pappas (2022) reported that around 85% of purchase decisions are made by subconscious and unconscious mind states. The conscious nature of self-reporting overlooks such intricate and often subconscious aspects of consumer behavior. The omission introduces a potential mismatch between what consumers verbally express and the actual intricacies of their behaviors, choices, and motivations (Eisend & Tarrahi 2016). The consequence of this inherent limitation is a substantial risk of inaccuracy and unreliability in the information gathered about consumer behavior. As individuals may not be fully aware of the subconscious factors influencing their decisions or may be hesitant to disclose certain details, the data obtained through self-reporting methods may not fully capture the depth and complexity of consumer motivations (Bawack and Bonhoure, 2022). This discrepancy has far-reaching implications for the efficacy of marketing strategies, product development, and decision-making processes based on the insights derived from these traditional research approaches. Further, traditional research often lacks the precision required to delve into the intricacies of neural processes and subconscious elements that heavily influence consumer decision-making (Wang & Scheinbaum, 2018). Through these methods, the subconscious drivers of decision-making, emotional responses, and cognitive biases, often go unnoticed, leaving a gap in understanding the holistic nature of consumer behavior. This lack of precision impedes the ability to fully grasp the nuanced and complex factors influencing why consumers make specific choices, highlighting the necessity for advanced methodologies that can directly assess the neurofunctions of the consumer brain for a more comprehensive understanding (Bergkvist & Zhou, 2016). Such a requirement is a pressing demand from the industry as considering that celebrity endorsements often involve high value deals, they require robust methods to base their decisions related celebrity endorsements without which they are unable to generate enough return on investment (ROI). For instance, footwear brand, Walkaroo shoes had to frequently alter their celebrity ambassador as they were unable to generate adequate ROI with the absence of relevant empirical studies (Pushkarna, 2022). They signed Rohit Sharma for a three year period from 2016-2019 who was replaced with the actor Aamir Khan who they replaced with Ajay Devgn in again in 2022 as his much anticipated movie "Laal Singh Chaddha" did not turn out to be a blockbuster which could generate enough consumer purchases for the brand.

### 1.3 Neuromarketing studies

In footwear industry, the adoption of neuromarketing over traditional methods finds justification in the intricacies of consumer behavior specific to this sector. Footwear choices often extend beyond utilitarian considerations, becoming emblematic of personal style and self-expression (Wyer et al., 2020). Neuromarketing, with its capacity to measure emotional responses and subconscious associations, proves instrumental in unveiling the profound emotions and motivations steering consumer choices (Singh, 2023). The complex decision-making process in the industry, influenced by factors such as comfort, style, brand image, and functionality, demands insights into cognitive processes and emotional responses that neuromarketing's precision can provide (Shang and Luo, 2021). Visual appeal plays an important role in the footwear industry, and neuromarketing's ability to analyze the visual stimuli influencing positive responses is crucial for designing visually appealing products and campaigns (Badenhausen, 2020). Furthermore, neuromarketing excels at uncovering subtle brand perceptions that traditional methods may overlook, offering a more nuanced understanding of the association's consumers hold with specific brands (Liu and Liu, 2019). This depth of insight becomes particularly valuable in a market where

brand image significantly impacts purchasing decisions. Neuromarketing's real-time feedback on design elements is a distinctive advantage in the footwear industry, facilitating immediate insights into how specific features resonate with consumers on a neurological level. This capability is challenging to replicate through traditional research methods (Rawat and Singh, 2021). Understanding the consumer experience within retail spaces is vital for optimizing store layouts, product placements, and instore messaging—areas where neuromarketing excels. The constant innovation and evolving trends in the footwear industry benefit from neuromarketing, providing businesses with insights into consumer responses to innovative designs, materials, and features (Manchanda et al., 2021). This knowledge aids in staying ahead in a dynamic and competitive market and also positions businesses to cater to the ever-changing preferences of their target audience.

Unlike traditional research methods, neuromarketing employs advanced technologies to examine the subconscious processes that influence consumer decisions. By decoding the neural responses associated with preferences, emotions, and motivations, neuromarketing transcends the limitations of traditional approaches, offering unparalleled precision and insights into the factors guiding consumer choices (Manchanda et al., 2021). Neuromarketing can be understood as "the study of the cerebral mechanism to understand the consumer's behavior in order to improve the marketing strategies" (Orzan et al., 2012). By employing techniques from neuroscience, behavioral economics, psychology, and marketing, neuromarketing seeks to understand the cognitive and emotional processes that influence consumers, providing valuable data to refine and optimize marketing approaches for better engagement and effectiveness (Ćosić, 2016). By employing advanced technologies like fMRI and EEG, neuromarketers can examine neural responses that shape decisionmaking processes. This approach bridges the gap between traditional market research and the underlying factors influencing consumer preferences. Biometric measurements, such as heart rate and eye movements, provide additional layers of insight, while implicit testing reveals subconscious attitudes (Gauns et al., 2018). Neuromarketing finds applications in optimizing advertising campaigns, guiding product development,

shaping brand perception, and enhancing overall customer experiences. By understanding emotional triggers at a neurological level, marketers can craft strategies that resonate deeply, fostering stronger connections between consumers and brands. As technology evolves, neuromarketing holds the promise of unlocking deeper understandings of consumer behavior, empowering businesses to create more resonant and impactful marketing strategies (Sharma, 2016). The following section explains the importance of neuromarketing in footwear industry.

#### 1.4 Footwear neuroscience

Footwear industry is witnessing a shift in the design and development of footwear based on the principles of footwear neuroscience. This emerging approach signifies a departure from conventional design paradigms, as it places a heightened emphasis on the neural processes involved in the perception, comfort, and overall experience of footwear (Ghirlanda et al., 2020). Footwear neuroscience examines the relationship between the brain, sensory perception, and the design and experience of wearing shoes. This field combines principles of neuroscience with design innovation to understand how the brain processes information related to footwear and how this, in turn, influences consumer behavior and preferences (Ghirlanda et al., 2020).

It involves studying the neural responses to various sensory stimuli generated by shoes. This includes analyzing how the brain perceives and processes tactile sensations, pressure points, and temperature variations on the feet (Goel, 2015). These sensory inputs assist in designing shoes that provide comfort and also enhances the overall sensory experience for the wearer (Wheeler, 2009). Neuroscientific researches in footwear design explores the impact of aesthetics on neural responses. Visual cues, colors, and design elements can evoke specific emotions and preferences, influencing the brain's perception of the footwear (Sutia et al., 2023). Brands and designers leverage this knowledge to create shoes that resonate with consumers on a subconscious level, fostering positive emotional associations. Footwear neuroscience plays a role in studying the biomechanics of walking and how different shoe designs affect gait and posture. By examining the neural signals related to movement and balance, footwear

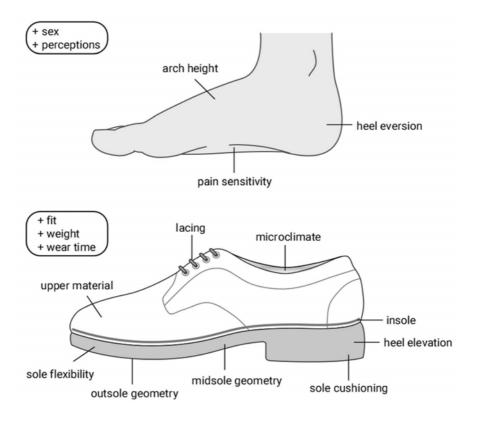
researchers can provide insights into developing footwear that promotes not only comfort but also enhances physical well-being (Fleck et al., 2012). This transformative approach acknowledges the role of neuroscience in understanding the biomechanics of movement and how different shoes can influence gait and posture. By integrating neuroscientific principles, the industry is producing footwear that caters to physical comfort, promotes overall well-being which aligns with the growing emphasis on health-conscious consumer choices. Figure 1.2 represents a neuroscience-based framework adopted by Ortiz et al. (2021) to suggest improvements in footwear design and comfort based upon electroencephalography (EEG) signals from ten subjects while walking, aiming to uncover the neural mechanisms involved in the evaluation of footwear comfort (Chung and Cho, 2017). The study involved extracting various features from the subjects' biosignals, utilizing attributes such as power spectral density, temporal parameters, and statistical attributes. The study specifically compares the extracted features when subjects wear both comfortable and uncomfortable shoes, differentiated by size, on a treadmill (Heath, 2012). The research highlighted the potential for generalizability across subjects maintaining an average accuracy of 83.7%

Figure 1.2 Footwear analytics framework based on neuroscience analysis

Source. Ortiz et al. (2021)

Menz and Bonanno (2021) have suggested that in contemporary footwear design, there is a notable shift towards tailoring specific footwear attributes based on insights extracted from scientific testing of products. (Figure 1.3). The designing of specific footwear attributes guided by neuroscience involves examination of neural patterns associated with comfort, aesthetics, and overall user experience. Their research indicates that employing simple visual analog scales proves to be a reliable method for obtaining an overall assessment of comfort. Well-fitted, lightweight shoes with soft midsoles and curved rocker-soles tend to be universally perceived as the most comfortable. They emphasized that footwear comfort is not solely determined by structural and functional aspects of shoe design. Rather, it is a dynamic interplay influenced by individual anatomical differences, task requirements, physiological differences and psychological preferences. This entails a deeper exploration of how factors like sole flexibility, microclimate within the shoe, and the use of insoles interact with each other.

Figure 1.3 Science based footwear designing



Source. Menz and Bonanno (2021)

Ghimouz et al. (2023) have indicated how science-based footwear designing is catalyzing transformative changes in product designs and concurrently shaping new business models within the global fashion industry. They have suggested how technological innovations, like design for assembly (DFA), design for disassembly (DFD), design for additive manufacturing (DFAM) are bringing environmental efficiency in footwear manufacturing, addressing carbon footprints in fashion industry and providing opportunities for start-ups and new business to innovate with footwear designs at the global level. Figure 1.4 denotes the integration of additive manufacturing's (AM) capabilities to produce footwear parts and introducing glueless mechanical assembly system incorporates a variable lattice structure in the upper part of the shoe which ensures show flexibility in different areas and enhances product durability.

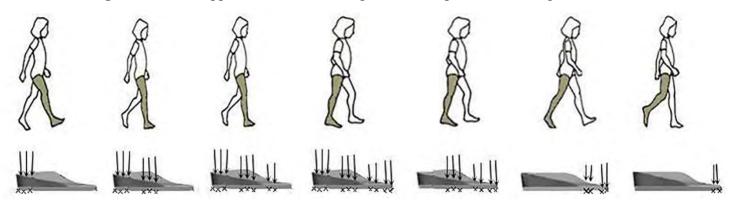
Smaller toes toe (T1) Shore A Hardness Area 2 75-80 Centra First forefoot 40A 100A Metatarsa (M23) (M1)ateral forefoot (M45)Midfoot (MF) Media Lateral 60-65 Area 1 hee (LH) b)

Figure 1.4 Analytics based shoe redesign

Source. Ghimouz et al. (2023)

Shakouri et al. (2019) tried to show how forces are applied to the foot during the mid-stance phase of walking. Figure 1.5 helps visualize how pressure and loads are distributed on the foot during this specific part of the walking cycle. The study provided potential connection between comfort perception and biomechanics. Understanding biomechanics of foot forces, can provide insights into the physiological aspects of comfort, can influence consumer preferences for footwear.

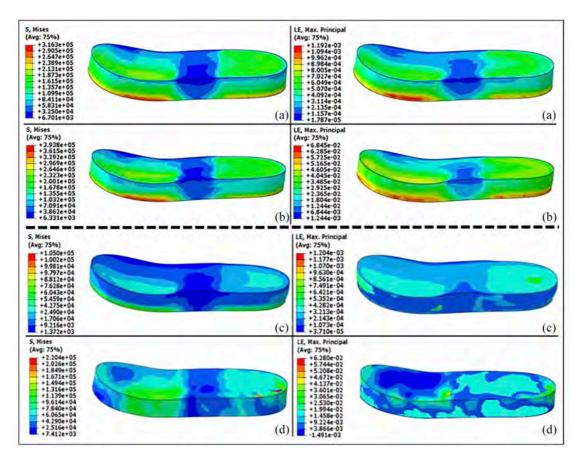
Figure 1.5 Force applied to the foot during mid-stance phase of walking



Source. Shakouri et al. (2019)

Figure 1.6 provides a stress and strain analysis of footwear product which assists in determination of appropriate insole for different shoe category to minimise footwear product induced pain and walking or running activity derived pain.

Figure 1.6 Stress and Strain analysis of footwear product



Source. Shakouri et al. (2019)

### 1.5 Marketing footwear product technology

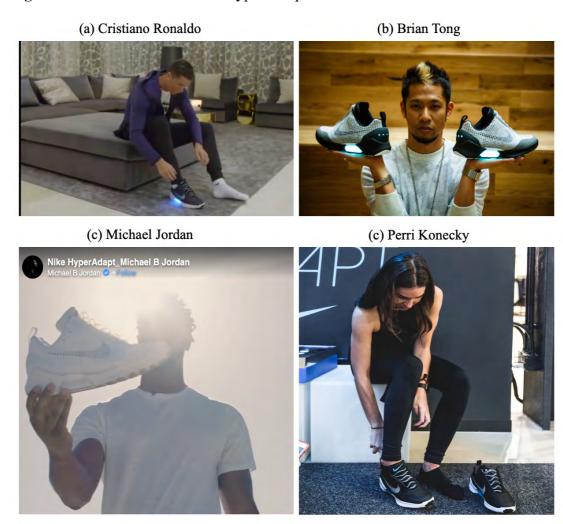
The integration of scientific principles in innovative footwear development is playing an important role in shaping effective marketing strategies for brands. By emphasizing the application of neural science, biomechanics, material science, and comfort analysis, footwear brands are differentiating themselves in a crowded market (Sharma, 2016). Communicating the unique selling points based on scientific research allows brands to position their products as technologically advanced and innovative. This knowledge enables targeted marketing efforts, tailoring messages to specific consumer segments and addressing their individual needs, such as professionals seeking comfort during long hours on their feet. Educational content that explains the science behind footwear design builds brand credibility and establish the brand as an authority in the industry (Parayitam et al., 2020). Personalized marketing, leveraging data on consumer preferences and biomechanical considerations, enhances the shopping experience. If the scientific research contributes to sustainable practices, such as the use of eco-friendly materials, brands can integrate sustainability messaging into their marketing strategy (Aggarwal-Gupta, and Dang, 2009). Testimonials from experts and visual representations of scientific data further contribute to building trust and transparency. Incorporation of scientific knowledge in marketing efforts allows footwear brands to connect with consumers on a deeper level and meet the evolving demands for evidence-based, innovative, and sustainable products. In the study conducted by Pacheco-Blanco et al. (2018), compelling evidence was presented to support the implementation of varied pricing strategies for identical products based on distinct marketing approaches, particularly emphasizing the scientific workings underpinning the product. The research suggested that by showcasing the scientific processes and innovations involved in the product's development, marketers can justify differential pricing for the same underlying product (Figure 1.7). This approach leverages the perceived value derived from the scientific foundation, allowing businesses to strategically position and price their products in a way that reflects the investment in research, development, and technological advancements. The findings provide empirical support for the idea that consumers may attribute higher value to products marketed with a strong emphasis on the science behind them, thereby influencing their willingness to pay a premium for such scientifically backed offerings.

Figure 1.7. Differential footwear product pricing



Footwear majors Nike, Adidas and Puma have been spending significant budgetary allocations towards footwear research and development, something about which they are marketing actively in their new advertisements. For instance, Nike introduced Hyper adapt shoes which are battery operated and work on "adaptive lacing technology" costing \$720 (approximately INR 60,000). Figure 1.8 shows (a) Cristiano Ronaldo and (b) Brian Tong (c) Michael Jordon (d) Perri Konecky wearing Nike Hyper Adapt which is claimed to provide comfort and increased productivity. Footwear companies are designing advertisements that go beyond product showcases. They try to artfully communicate the technological advancements that set their shoes apart. From showcasing revolutionary cushioning systems to state-of-the-art materials, Nike's marketing endeavors emphasize aesthetics with the tangible benefits that align with the advanced technology integrated into their shoes. Adidas highlights the technological features of its shoes such as ground breaking sole technologies or sustainable materials. Puma focuses on merging performance and fashion, actively markets the technology embedded in its shoes related with durability and comfort. By showcasing the technological attributes of their footwear, footwear companies positions themselves as a brand that prioritizes functionality alongside style.

Figure 1.8 Celebrities with Nike Hyper Adapt



Footwear companies are investing major budgetary components in developing neuroscience-based footwear designs and products which can be advertised better. Table 1.1 provides a list of key innovations being done by footwear companies in this field.

Table 1.1 Footwear neuroscience-based innovations

Brand	Innovation
Puma	Creating footwear with biologically active mechanism
Adidas	Integrating foot biomechanics in footwear designing
Digitsole	Personalized shoes with adjustments for stress, posture, health
Zhor shoes	Alarm indicators for accidents or alterations in body vitals

Xiaomi shoes	Smart shoes measuring biomechanics

### 1.6 Footwear industry in India

The footwear industry in India is a dynamic and diverse sector that plays a significant role in economic development. The Indian footwear market is substantial, driven by a large population with diverse footwear needs. It encompasses a wide range of products, including casual shoes, formal shoes, sports shoes, sandals, and traditional footwear. The industry has experienced consistent growth, influenced by factors such as changing fashion trends, increasing disposable income, urbanization, and a growing awareness of branded and designer footwear. India has a rich tradition of handmade and artisanal footwear, reflecting the cultural and regional diversity of the country. Traditional styles like paduka, kolhapuri chappals (Maharashtra), Jodhpuri (Rajasthan), Juttis (Punjab), pula chappal and mojaris coexist with modern and westernized footwear (Figure 1.9). The coexistence of traditional and modern styles caters to a wide consumer base with varying preferences, making the Indian footwear market unique.

Figure 1.9 Traditional footwear patterns in India



Source. Bora (2020)

Indian footwear industry with the size of \$15.22 billion stands as the world's second-largest producer of footwear (2 billion pairs) and fifth largest exporter holding 1.9% share in the global export market (MMR, 2023). Australia, Bhutan, Ethiopia, Hong Kong, Kuwait, Malaysia, Mauritius, Mexico, Nepal, Nigeria, Oman, Qatar, Saudi Arabia, Seychelles, UAE, UK and USA. Figure 1.10 shows expected footwear market growth rate in India.

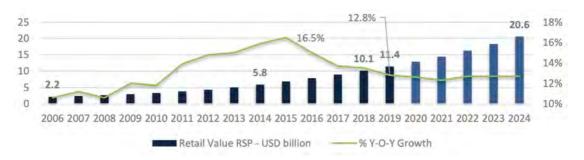
Footwear Market Growth in India 25.000 20,000 +10% 15.000 10,000 5000 2015 2017 2022E 2023E 2024E 2014 2016 2018 Source : Statista Jun 2020, all figures are in USD Mn; 1 USD = 65 INR

Figure 1.10 Footwear market growth in India

Source. Statista (2020)

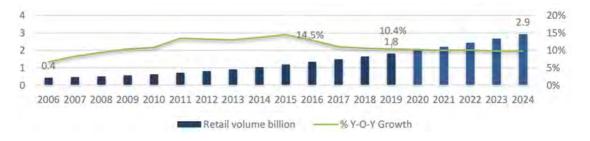
The footwear sector's retail value, standing at \$11.4 billion (2019), is anticipated to exceed \$20.6 billion (2024), indicating a noteworthy 12.6% rate of growth (Figure 1.11). India, as a key player in the global footwear market, has demonstrated substantial growth in production. Currently manufacturing 1.8 billion pairs of footwear, the country is poised to exceed 3 billion pairs by 2024. This remarkable increase reflects an impressive annual growth rate of 10%, as illustrated in Figure 1.11. The substantial uptick in production is indicative of India's role as a major contributor to the global footwear market (Figure 1.12).

Figure 1.11 Retail value of Indian footwear industry



Source. KPMG (2020)

Figure 1.12 Retail volume of Indian footwear industry



Source. KPMG (2020)

The efficient working of footwear industry considers the interplay of 'footwear and leather products'. Footwear products include leather footwear, non-leather footwear and ancillary units such as buckles, buttons and snap fasteners, embroidery thread, eyelets, fly knit factories, footbed factories, hooks, inlay cards, lace factories, mould factories, ornaments, polyurethane leather, rivets, sequins, sole factories, stock fitting facilities, stones, stud elastic cloth, toggles, upper stitching units and zips. Leather products include leather garments, leather finished goods, leather accessories, harness and saddles. Leather pre-processing and tanneries are the units engaged in leather processing. Figure 1.13 shows the footwear value chain process from leather to final shoe development. Around 86% of the industry is moving towards becoming non-leather based considering the market trends, consumer preferences, cost-benefit analysis and government policies. Accordingly, the non-leather footwear industry is anticipated to experience an 700% growth by the year 2030. It is expected to exceed \$6 billion milestone by the year 2025. One key driver for such growth is the increasing demand for sustainable products. Non-leather footwear, often crafted from materials

such as synthetic fabrics, plant-based materials, and recycled components, aligns with the growing consciousness of consumers who prioritize environmentally friendly and ethically produced goods. Technological advancements in the development of alternative materials have also played a role in propelling the non-leather footwear industry forward. Innovations in synthetic fabrics, bio-based materials, and recycled elements have not only enhanced the quality and durability of non-leather footwear but have also contributed to a wider variety of styles and designs available to consumers.

Figure 1.13 Footwear value chain development



The footwear market in India comprises a mix of branded and unbranded products and the retail landscape has witnessed significant changes with the growth of organized retail and e-commerce. Established footwear brands, as well as new entrants, leverage both physical stores and online platforms to reach a wider consumer base. India is not only a large consumer but also a significant exporter of footwear. The country exports footwear to various countries, and Indian-made shoes are appreciated for their craftsmanship and diversity. Simultaneously, India imports footwear, especially high-end and specialized products, to meet the demands of consumers looking for international styles. Approximately 75% of non-leather footwear industry's production is generated from small, and medium Enterprises (SMEs) situated in key non-leather shoemaking hubs across the country. These include cities like such as Agra, Ambur, Bahadurgarh, Kozhikode, Chennai, Delhi, Ernakulam, Faridabad, Jalandhar,

Kanpur, Karnal, Kolkata, Ludhiana, Mumbai, Pune, Ranipet, Sonepat, Vaniyambadi (Figure 1.14). Renowned luxury footwear brands such as Armani, Bugatti, Cardin, Clarks, Coach, Cole Haan, Daniel Hechter, Ecco, Florsheim, Gucci, Hugo Boss, Johnston & Murphy, Louis Vuitton, Prada, Tommy Hilfiger, and Zara, either have their manufacturing operations based in these manufacturing hubs or procure raw materials from these clusters. These SMEs are also classified as 'export houses', 'semi-mechanized units', 'workshop units' and 'household units'.



Figure 1.14 Prominent footwear production hubs in India

The footwear sector in India is experiencing a transformative phase, backed by progressive government policies and substantial incentives. The recent allowance of 100% Foreign Direct Investment (FDI) through the automatic route, coupled with the de-licensing and de-reserving of the sector, has created an environment conducive to

both domestic and international investments. In a significant boost to the industry, the government has introduced "Indian Footwear and Leather Development Programme (IFLDP)", specifically tailored for the footwear and leather sector. This strategic move not only aids organized sector players in managing workforce dynamics, with the potential to employ 3,00,000 individuals, but also addresses pricing pressures. The National Skill Certification & Monetary Reward Scheme has played a role in preparing the workforce for the footwear and leather industry, training over 60,000 youth since its initiation in 2015. Beyond human capital development, the sector's positive trajectory is further fueled by advancements in technology, machinery, the abundance of skilled labor, the growth of e-commerce, and evolving consumer preferences. Initiatives such as Atmanirbhar Bharat, Make in India and Startup India have ushered in a new era of expansion and growth for the industry. Currently employing 2 million workers, the footwear sector stands as one of the highest employing sectors in the country. Department for the Promotion of Industry and Internal Trade (DPIIT) suggested the industry's capacity to generate 250 jobs for every Rs. 1 crore investment showcases its economic viability. For every 1,000 pairs produced and sold in India daily, the sector has the potential to create 425 jobs across manufacturing, retail and allied industries (TN, 2022). This confluence of government support, industry incentives, and inherent job creation capabilities positions the Indian footwear sector on a growth trajectory. Table 1.2 shows the retail sales and growth rate of some footwear brands in India. Figure 1.15 shows the prominent footwear players in India.

Table 1.2 Retail sales and growth rate of some footwear brands in India

Brand	Retail sales (million INR)	Growth rate (%)
Aero Group	7,493	11
Puma Sports India	9,972	17.6
Metro Shoes	9,973	11.5
Khadim India	9,749	10.6
Adidas India Marketing	14,533	12.6
Paragon Group	23,429	10.5
Veekesy Rubber Industries	22,071	15.2
Relaxo Footwears	26,781	14.2
Bata India	32,888	6.6

Figure 1.15 Prominent footwear brands in India



## 1.7 Challenges of Indian footwear industry

The Indian footwear industry, while experiencing substantial growth, faces certain challenges. This section explains the challenges faced by the Indian footwear industry. One significant challenge is the prevalence of unorganized sector, which posits in establishing uniform industry standards. Further dominance is being seen by selected companies over the consumer markets. The industry faces fluctuations in raw material prices, particularly leather, which can significantly impact production costs and profit margins. The industry faces challenges related to quality standards, supply chain efficiency, and competition from global players. Infrastructure constraints, including inadequate transportation facilities and warehousing, pose logistical challenges for manufacturers. This, coupled with regulatory complexities, makes supply chain management a demanding task. The industry is increasingly challenged by environmental sustainability concerns. The use of traditional materials, energyintensive manufacturing processes, and waste management issues contribute to the industry's environmental footprint. Adapting to eco-friendly practices while maintaining cost-effectiveness presents a balancing act. Technological advancements are reshaping consumer expectations, necessitating a shift towards more innovative and tech-savvy manufacturing processes.

The industry must deal with the need for continual upskilling and integration of technology to stay relevant in a rapidly evolving market. Another challenge lies in the realm of intellectual property rights, where counterfeiting remains a prevalent issue, negatively impacting both brand reputation and revenue. Global economic fluctuations and geopolitical uncertainties can impact the export-oriented nature of the Indian footwear industry. Trade barriers and changing consumer preferences in international markets add an additional layer of complexity to the industry's global outreach. Table 1.3 highlights certain challenges faced by the footwear industry in India.

Table 1.3 Challenges faced by Indian footwear industry

Challenge	Description
Limited level of formalization (Meng et al. 2021)	<ul> <li>Low registration levels of SMEs across segments like export oriented units, semi-mechanized units, workshop units and household units reflected by insufficient uptake of Udyam Registration (UAM) particularly within workshop units and household units.</li> <li>Low formalization level hinders their ability to access essential benefits and support systems available for registered SMEs.</li> </ul>
Obsolete technology (Yan et al., 2023)	<ul> <li>Absence of access to the latest manufacturing technologies, often attributed to the high costs associated with acquiring modern machinery</li> <li>Reliance on obsolete methods hampers productivity, also increases operational costs and environmental impact</li> <li>Upgrading production technology is imperative to enhance efficiency, reduce material wastage, and align with contemporary industry standards</li> </ul>
Inadequate quality control (Prasad et al., 2021)	Lack of adherence to established quality benchmarks results in poor product quality, affecting both consumer satisfaction and overall industry reputation

	<ul> <li>In the absence of consistent quality standards, manufacturers face difficulties in meeting customer expectations, leading to increased product returns and diminished brand trust.</li> <li>Establishing and adhering to robust quality control measures is imperative to uplift the overall product quality and foster consumer confidence.</li> </ul>
Demand related challenges (Rietveld et al., 2020)	<ul> <li>Fluctuating Consumer Preferences: Rapid changes in fashion trends and consumer preferences create challenges for footwear manufacturers to align their product offerings with evolving styles.</li> <li>Economic Volatility: Economic uncertainties, fluctuations in disposable income, and changing purchasing power directly influence consumer spending on non-essential items like footwear.</li> <li>Price Sensitivity: Consumers often exhibit high price sensitivity, making it challenging for manufacturers to maintain competitive pricing while ensuring product quality.</li> <li>Seasonal Demand Variations: The industry experiences fluctuations in demand due to seasonal changes, with specific types of footwear in higher demand during particular times of the year.</li> <li>Global Competition: Increased exposure to international brands and global competition intensifies the need for local manufacturers to meet or exceed global standards to retain market share.</li> <li>E-commerce Impact: The growth of e-commerce platforms influences consumer buying habits, presenting challenges for traditional brick-and-mortar retailers in adapting to the online marketplace.</li> <li>Brand Loyalty: Building and maintaining brand loyalty is a constant challenge, as consumers are often swayed by various factors such as marketing strategies, brand image, and perceived value.</li> </ul>
Supply related challenges . (Zielhuis et al., 2022)	Raw Material Sourcing: Dependence on specific raw materials, such as leather, and potential supply chain disruptions can lead to shortages and increased costs.

- Logistical Bottlenecks: Inefficient transportation infrastructure and supply chain bottlenecks can result in delayed production cycles and increased lead times.
- Manufacturing Capacity: Limited manufacturing capacity, particularly in small and medium enterprises, may hinder the industry's ability to meet growing demand.
- Skilled Labor Shortage: A shortage of skilled labor, especially in specialized areas of footwear production, can lead to increased training costs and impact overall productivity.
- Technology Adoption: Reluctance or lack of resources to adopt modern manufacturing technologies may result in outdated production processes, affecting efficiency and product quality.
- Global Supply Chain Disruptions: Dependence on global suppliers for certain components can make the industry vulnerable to international supply chain disruptions.
- Environmental Regulations: Stringent environmental regulations may pose challenges in sourcing sustainable materials and complying with eco-friendly manufacturing practices.

# Workforce related challenges (Belch and Belch, 2021)

- Technological Advancements: The industry's transition towards advanced manufacturing technologies necessitates a workforce with the technical know-how to operate and maintain modern machinery.
- Design Innovation: With a growing emphasis on design and innovation, there is a need to up-skill workers in areas such as 3D modeling, computer-aided design (CAD), and other creative aspects of footwear production.
- Quality Assurance: Training programs focused on quality control and assurance are essential to ensure that the workforce is adept at maintaining consistent and high-quality standards in footwear manufacturing.

- Sustainable Practices: The shift towards sustainable and eco-friendly practices requires an up-skilled workforce capable of implementing and managing environmentally responsible manufacturing processes.
- Digital Literacy: As the industry integrates digital technologies, workers need to be proficient in digital literacy to adapt to digitalized production processes and data-driven decision-making.
- Supply Chain Management: Training programs in supply chain management are crucial to optimize logistics, minimize lead times, and enhance overall operational efficiency.
- Adaptability to Trends: Continuous up-skilling is necessary to keep the workforce attuned to evolving market trends, consumer preferences, and industry innovations.
- Cross-functional Training: Cross-functional training programs can foster versatility among workers, allowing them to contribute across different stages of the footwear production process.

# Finance related challenges (Chung et al., 2017)

- Working Capital Management: Managing day-to-day operational expenses, raw material procurement, and production costs requires effective working capital management. Inadequate working capital can lead to production delays and disruptions.
- Access to Capital: Small and medium-sized enterprises (SMEs) in the footwear industry often face challenges in accessing affordable capital for expansion, technology adoption, and meeting increasing market demands.
- High Capital Expenditure: The industry is capital-intensive, with substantial investments required in modern machinery, technology upgrades, and research and development. High capital expenditure poses challenges, especially for smaller players.
- Credit Availability: Availability of credit on favorable terms is crucial for sustained growth. Limited access to credit or high-interest rates can constrain investment and hinder business expansion.

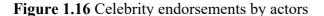
- Export Financing: For export-oriented units, securing competitive export financing terms is vital. Fluctuating exchange rates and delayed payments from international clients can impact financial stability.
- Risk Management: Managing financial risks, including currency fluctuations, interest rate changes, and market uncertainties, is essential for long-term financial stability and growth.
- Taxation Challenges: Complex tax structures, including Goods and Services Tax (GST) compliance, can pose challenges for businesses, particularly in terms of understanding and adhering to tax regulations.

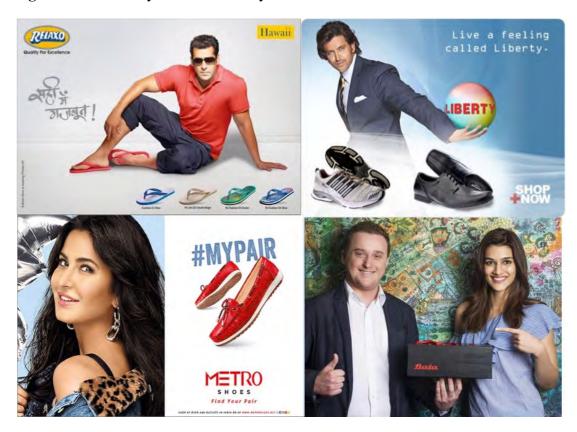
However, these challenges also present opportunities for innovation, technology adoption, and skill development. Initiatives like 'Make in India' and the focus on sustainable and eco-friendly practices offer avenues for growth and development within the Indian footwear industry.

### 1.8 Celebrity endorsements in footwear industry

Celebrity endorsements have long been perceived as a prominent and impactful marketing strategy. Brands often collaborate with well-known personalities from various fields, including sports, entertainment, and fashion, to enhance their visibility, credibility, and market appeal (Dwivedi et al., 2021). Celebrities bring their established images and credibility to the brands they endorse. When a reputable personality is associated with a footwear brand, it is perceived that it can positively influence consumers' perceptions, associating the brand with qualities such as style, performance, or trendiness (Yoo et al., 2013). In a competitive market, celebrity endorsements provide a means for brands to stand out and differentiate themselves. Consumers may be more likely to choose a brand endorsed by their favorite celebrity over other options, leading to increased market share and brand visibility (Jung and Lee, 2016). The theory of parasocial interaction suggests that individuals develop one-sided relationships with media personalities, leading consumers to feel a personal connection with celebrities. This connection can influence purchasing decisions (Flecha-Ortíz et al., 2021). The rise of social media has amplified the reach and impact of celebrity endorsements.

Celebrities can share their collaborations with a global audience instantly, creating buzz and excitement around new releases. Social media platforms also enable direct engagement with consumers. Figure 1.16 depicts certain footwear celebrity endorsements undertaken by prominent actors in India.





Traditionally, film actors have been the primary celebrity endorsers, leveraging their on-screen appeal to enhance the style and lifestyle quotient of the products. However, with the surge in popularity of sports, catalyzed by "Khelo India", IPL, and various sports leagues, sports figures have emerged as active and influential endorsers. Sports endorsers bring a different dynamic to the table, emphasizing performance, durability, and functionality, qualities that resonate strongly with consumers seeking not only style but also utility in their footwear choices. For instance, in 2017, Puma signed Rs. 110 crore deal with cricketer Virat Kohli for an eight-year contract period. MS Dhoni signed around Rs. 180 crore endorsements standing second to brand preferred star Shahrukh Khan (Mishra and Rao, 2017). The authenticity and dedication

associated with athletes contribute to a compelling narrative for brands, aligning with the ethos of sportsmanship and hard work. This shift in celebrity endorsement dynamics reflects a broader cultural shift, where the influence of sports and the achievements of athletes have become integral to popular culture. Much like film actors, sports endorsers have become iconic figures with significant fan bases. Their achievements, both on and off the field, contribute to a magnetic appeal that extends beyond their athletic prowess. The public's admiration for sports personalities is not limited to their performance during games but encompasses their dedication, discipline, and the embodiment of values associated with sportsmanship. Figure 1.17 depicts certain recent celebrity endorsements undertaken by sports persons.

Figure 1.17 Celebrity endorsements by sports persons



In recent times, a trend can be seen emerging where celebrities are not merely content with being the face of established brands; instead, they are actively venturing into entrepreneurship by creating and endorsing their own self-owned footwear brands.

This shift represents a significant departure from traditional celebrity endorsements, as these individuals are now assuming the role of proprietors, lending their personal touch and creative input to the design and marketing of their signature shoe lines. Celebrities are increasingly recognizing the potential for financial success and brand longevity that comes with establishing their own businesses. By capitalizing on their influence and personal style, they are able to connect more authentically with consumers, fostering a deeper sense of trust and loyalty. Further, social media platforms have played a role in democratizing access to audiences, allowing celebrities to promote and sell their footwear lines directly to fans. This direct-to-consumer approach not only enhances profit margins but also enables a more direct and immediate connection between the celebrity and their fan base. This diversification brings a range of unique styles and perspectives, catering to a broader consumer base with different tastes and preferences. Figure 1.18 displays some endorsements of celebrity owned brands in India. Marketing of such brands is derived from the established fame and recognition of the celebrity. With a ready fan base available, such brands are able to get an initial push which new brands struggle to obtain in the initial brand growth cycle.

Figure 1.18 Celebrity endorsements of celebrity proprietor brands



In the West, particularly in the United States, the concept of celebrity-owned brands has been a prevalent and successful phenomenon for quite some time. Renowned figures from various industries have seamlessly transitioned from being endorsers to becoming active stakeholders in businesses, contributing to the proliferation of unique and influential brands. In India, this trend is gaining momentum, driven by the evolving consumer landscape, where individuals are increasingly drawn to products and experiences associated with their favorite celebrities. Indian celebrities are recognizing the potential for business ownership as a means to not only capitalize on their personal brand but also to engage with their fan base in a more meaningful way. However, academic studies on the phenomenon are notably limited, leaving a gap in scholarly understanding. Table 1.4 provides a list of some prominent celebrity proprietary brands in India and abroad. Potential areas of study are needed to assess the impact of advertising of brands as celebrity owned vis a vis third party owned brands (company owned) upon consumer preferences. As the trend continues to evolve in India, there exists opportunities to contribute to the academic discourse by providing comprehensive insights into the dynamics, challenges, and implications of the growing prevalence of celebrity-owned brands in the country.

**Table 1.4** Celebrity proprietary brands

Celebrity	Brand name	Business partner
Virat Kohli	One8	Puma
Virat Kohli	Wrogn	USPL World
MS Dhoni	Seven	RS Seven Lifestyle
Hrithik Roshan	HRX	Exceed Entertainment
Saif Ali Khan	House of Pataudi	Myntra
Dwayne Johnson (The Rock)	Project Rock	Under Armour
Kanye West	Yeezy	Adidas
Selena Gomez	SG	Puma
Rihanna	Fenty	Puma

Kendrick Lamar	Damn	Nike
Cardi B	x Cardi B	Reebok
Post Malone	Posty Co	Crocs
Sarah Jessica Parker	SJP Collection	-
Zayn Malik	Giuseppe x Zayn	Giuseppe Zanotti
Kendall Jenner and Kylie Jenner	Kendall + Kylie	-

Marketers often view a consumer's mind as a metaphorical black box, where thoughts, perceptions, and decision-making processes are hidden from direct observation (Kapferer, 2008). Much like a sealed container, the consumer's mind is not transparent, marketers cannot directly witness or access the internal processes that lead to specific choices (Amakyewaa et al., 2021). Instead, they are left to navigate a landscape where motivations, desires, and the interplay of various psychological factors are not immediately evident. Techniques such as neuromarketing, consumer psychology studies, and advanced analytics serve as tools to understand this metaphorical container. These tools allow marketers to gain insights into the unconscious drivers of consumer decisions, revealing the connections between external stimuli and internal cognitive processes. Blakeslee (2004) termed this understanding of neural procedures as identification of a "buy button in brain" and what leads to activation of such button. The understanding of such mechanism has been given importance considering that 80% of the celebrity endorsements turn out to be a failure in the United States leaving advertisers with limited scientific appraisal of what really works in influencing consumer decision and what does not. Advertisers find it complex to decipher the repeat purchase or no repeat purchase behavior as to what motivated the consumers "buy button" to operate as "buy again button" or "do not buy again button". Research suggests adoption of neuromarketing studies to appraise the conflicting behavior between consumer thoughts and actions (Batra & Keller, 2016). For instance, consumers were found to deny preference for luxury products while their brain prefrontal cortex region map denoted their liking for the same. Similarly for crosscultural behavior, it is difficult for advertisers to attribute reasons for purchase or not to purchase a product. For instance, Latin American consumers show liking and

preference for majority of the products while European consumers show criticism before product appraisal (Ariely and Berns, 2010). Neuromarketing overcomes these limitations by understanding what makes the brain trigger the "buy button" and trigger an actual sale across geographies.

Neuromarketing of celebrity endorsements involves leveraging insights from neuroscience to strategically enhance the effectiveness of marketing campaigns featuring well-known personalities (Zhu et. al, 2019). This approach taps into the workings of the human brain to understand and influence consumer behavior at a deeper level. Neuroscience techniques enable marketers to measure the release of neurotransmitters like dopamine and oxytocin in response to celebrity endorsements (Keller and Swaminathan, 2020). These chemicals are associated with positive emotions, contributing to an emotional connection between the consumer and the endorsed product (Hwang et al., 2018). Neuromarketing assesses brain activity patterns related to attention and memory formation during exposure to celebrity endorsements which can help marketers understand how effectively the celebrity captures attention and creates lasting memories, enhancing brand recall. Neuromarketing studies neural responses associated with trust and credibility when consumers are exposed to celebrity endorsements (Silva et al., 2023). Positive neural responses contribute to consumers' trust in the endorsed product or brand. The field examines neural activation patterns associated with both the celebrity and the endorsed product. This provides insights into how the consumer mentally associates the celebrity's personal brand with the attributes of the product, shaping overall brand perception.

# 1.9 Rationale for the study

The rationale for conducting a neuromarketing study on examining the influence of celebrity endorsements on consumer preferences lies in the intersection of neuroscience and marketing, offering a unique opportunity to gain insights into consumer preferences and decision-making processes. The study aims to provide a comprehensive understanding of how consumers neurologically respond to celebrity

endorsements, undertaking the emotional, cognitive, and motivational dimensions that influence purchasing decisions. The study considers the context dependence of neural responses, recognizing that the effectiveness of a celebrity endorsement is influenced by various situational factors. The neuroscientific findings become a roadmap for designing more impactful celebrity endorsements. Positive frontal asymmetry, indicative of approach motivation, is leveraged to associate celebrities with positive emotions, desire, and wanting. Aligning celebrities with specific emotions relevant to the brand's identity ensures a resonant and memorable impact on consumers. The study's insights also guide the selection of celebrities, considering their potential to evoke the desired neural responses and align with the brand's values. Understanding the long-term impact of celebrity endorsements from both neuroscience and marketing perspectives is crucial. Neuroscientific data informs marketers about the sustainability of the emotional connections forged through endorsements, helping in the selection of celebrities with enduring appeal. This collaborative approach ensures that marketing strategies align with the neural nuances identified by neuroscience, fostering authenticity and relatability in celebrity endorsements.

Celebrity endorsements are a prevalent and impactful marketing strategy, but their success is not guaranteed. The conventional approach to celebrity endorsements often lacks a precise understanding of the nuanced neural responses they elicit in consumers. While, neuromarketing, a multidisciplinary field that converges neuroscience with marketing principles, offers a unique lens through which marketers can glean insights into the intricate workings of the consumer brain. The primary objective is to refine and optimize the utilization of celebrity endorsements, transcending the limitations of traditional marketing paradigms. This involves a comprehensive examination of the neural correlates associated with consumer engagement, dissecting the emotional, cognitive, and motivational dimensions that shape individuals' responses to celebrity-endorsed brands. Neuromarketing techniques, such as functional magnetic resonance imaging (fMRI), electroencephalography (EEG), eye-tracking studies, facial coding, biometrics become valuable tools in decoding the intricate neural processes underlying consumer decision-making. By

understanding the neural correlates of consumer engagement, marketers gain unparalleled insights into the specific elements of celebrity endorsements that trigger positive or negative responses. This knowledge becomes a catalyst for more targeted and resonant campaigns. For instance, recognizing that certain celebrities evoke approach motivation and positive emotions associated with greater left hemispheric activation can inform the selection of endorsers for products linked to feelings of desire or satisfaction. Celebrities inducing right hemispheric activation might be suitable for products where a sense of caution or withdrawal is beneficial.

Consumer responses to celebrity endorsements exhibit cultural and individual variations. Understanding how neuroscientific responses differ across demographics enhances the generalizability and applicability of the findings. Neuromarketing, with techniques such as longitudinal neuroimaging studies and continuous EEG monitoring, provides a way to explore the neural underpinnings of sustained consumer engagement with endorsed brands. By tracking neural responses over extended periods, marketers gain insights into the durability of emotional connections forged through celebrity endorsements. This view enables a comprehensive understanding of how the initial impact of a celebrity collaboration evolves, identifying patterns of neural activation that signify enduring positive associations or potential fatigue. The enduring effects of celebrity partnerships are not solely contingent on immediate consumer reactions; instead, they unfold and evolve over time. Neuromarketing facilitates the identification of neural markers indicative of lasting positive sentiments, helping marketers discern whether the emotional resonance triggered by a celebrity endorser remains consistent or undergoes shifts in the long run. Understanding the neurobiological dynamics of enduring impact empowers marketers to predict trends, anticipate fluctuations in consumer sentiments, and make informed decisions regarding the trajectory of ongoing brand strategies. Neuromarketing assists in deciphering the neurocognitive processes associated with brand loyalty stemming from celebrity endorsements. By examining neural markers linked to sustained positive emotions, memory consolidation, and motivational factors, marketers can fine-tune their strategies to nurture enduring consumer-brand relationships. Neuromarketing provides a scientific foundation for

decision-making, allowing marketers to strategically select and manage celebrity endorsements based on a understanding of consumer neuroscience. Advertisers require empirical evidence on strategic celebrity endorser selection. The discipline of neuromarketing enables marketers to identify celebrities whose attributes align with the brand's values and resonate with the target audience on a neurobiological level. Through neuroscientific insights, marketers can examine the specific emotional triggers elicited by different celebrities, ensuring a strategic match that goes beyond surface-level popularity metrics. This approach contributes to the creation of authentic and enduring connections between celebrities and brands. Continuous monitoring of neural responses allows marketers to adapt and refine their strategies based on the evolving preferences and sentiments of the target audience. This dynamic approach ensures that celebrity partnerships remain in sync with the ever-changing landscape of consumer perceptions and preferences.

## 1.10 Aims and Objectives of the study

A research study should have a defined area of aims and objectives to guide the researchers in conducting an effective research. Aims and objectives act as a guiding path to perform the research in a systematic manner. The primary aim of this research study is to into the dynamics of celebrity endorsements within the footwear industry and their impact on consumer preferences. Employing neuromarketing methodologies, the research seeks to analyze the neurobiological underpinnings of consumer cognitive, affective, and conative attributes in response to celebrity-endorsed footwear brands. The study aims to evaluate the neurological patterns associated with varying levels of consumer engagement, examining the subconscious influence of celebrity endorsements on preferences. This study aims to assess consumer cognitive attributes, examining factors such as brand recall, information processing, and cognitive associations that shape perceptions, affective responses elicited by celebrity endorsements by exploring the emotional connections, preferences, and sentiments that contribute to consumer liking and brand attachment and conative attributes by focusing on behavioral outcomes like purchase intentions, loyalty, and overall engagement within the footwear market. Acknowledging the diversity within the consumer base,

the research recognizes the significance of moderating variables. Specifically, it aims to understand how age of the consumer, gender of the consumer, and ownership status of the footwear brand may interact with and potentially influence the neuroscientific responses to celebrity endorsements. By focusing the study in the Delhi National Capital Region (NCR) region, the research aims to capture nuanced preferences and behavioral patterns specific to the local consumer base within the footwear industry. The study seeks to provide strategic insights for marketers, offering a neuroscientifically informed understanding of how to optimize celebrity endorsements based on consumer demographics and brand ownership dynamics, thereby contributing to the enhancement of marketing strategies in the footwear industry. This research study has the following objectives:

- 1. "To study the relationship of celebrity endorsements in footwear industry with consumer preferences (cognitive attributes, affective attributes and conative attributes)"
- 2. "To study the moderation effect of demographic variables (age and gender) on the relationship of celebrity endorsements in footwear industry with consumer behaviour."
- 3. "To study the moderation effect of ownership status (owned by celebrity / third party ownership) on the relationship of celebrity endorsements in footwear industry with consumer behaviour."

The study aims contributes to the evolving field of neuromarketing by bridging the gap between neuroscience and celebrity endorsements. Generating empirical evidence and theoretical frameworks adds to the existing marketing literature, fostering academic advancement and providing practical insights for industry professionals.

#### 1.11 Neuroscience based celebrity endorsements

This section explains the advantages and limitations of developing celebrity endorsements based upon neuromarketing which can be used by marketers and managers to execute informed and targeted marketing.

#### 1.11.1 Advantages of neuroscience based celebrity endorsements

### (i) Emotional Connection

Neuromarketing leverages insights from brain activity to understand emotional responses. Celebrity endorsements evoke emotions, and by aligning with the right celebrity, brands can create a powerful emotional connection with the audience, enhancing brand recall and loyalty (Freire et al., 2017). When a brand strategically aligns with the right celebrity, it taps into the reservoir of emotions associated with that individual. Celebrities often embody specific qualities, values, or lifestyles that resonate with their fan base. By harnessing these associations, brands can forge a compelling emotional connection with the audience. This connection goes beyond the rational aspects of product features and functions, reaching into the realm of personal identification and aspiration (Ha and Lam, 2017). The emotional resonance triggered by celebrity endorsements is a catalyst for effects on consumer preferences. It fosters a sense of familiarity and relatability, generating positive sentiments towards the endorsed product or service (Kaur and Garg, 2016). This emotional resonance becomes a crucial factor in enhancing brand recall, as consumers are more likely to remember and engage with brands that evoke strong emotional responses. The emotional connection facilitated by celebrity endorsements extends to building brand loyalty (Marwick, 2015). Consumers who feel emotionally connected to a brand are not only more likely to make initial purchases but are also inclined to remain loyal over time. This loyalty is anchored in the emotional bond forged through the association with a celebrity, creating a lasting impression in the minds of consumers

#### (ii) Trust and credibility

The brain, an exquisite neural orchestra, orchestrates its response to stimuli, particularly those emanating from trusted figures, with precision. Celebrities, often

regarded as authority figures or aspirational icons, trigger neural pathways associated with trust when seamlessly integrated into brand narratives. Functional magnetic resonance imaging (fMRI) studies reveal heightened activity in brain regions linked to trust, such as the anterior cingulate cortex and the oxytocin-releasing centers, when individuals engage with stimuli featuring trusted personalities (Ding et al., 2011). Credibility manifests in the brain's intricate dance between the prefrontal cortex and the amygdala (Saima and Khan, 2020). As consumers encounter celebrity endorsements, the prefrontal cortex, orchestrating cognitive functions like reasoning and decision-making, scrutinizes the authenticity of the presented information (Agrawal and Kamakura, 1995). Amygdala, sentinel of emotional responses, assesses the emotional congruence between the celebrity endorser and the endorsed brand. This neural symbiosis dictates the perceived credibility of the endorsement, influencing the likelihood of consumer acceptance (Jun et al., 2023). Neural oscillations in the alpha band, a neural signature associated with cognitive processing and attentional allocation, exhibit distinct patterns when consumers navigate the landscape of celebrity endorsements (Chen et al., 2021). Peaks in alpha power signify heightened attention and cognitive engagement, suggesting that the brain is attuned to the trustworthiness and credibility cues embedded in the endorsement.

## (iii) Attention capture

Within the neural ballet of consumer attention, the concept of attention capture is a captivating choreography elucidated by the nuanced lens of neuromarketing (Johansson and Bozan, 2017). As consumers traverse the intricate landscape of brand stimuli, the brain orchestrates a symphony of neural responses, guiding the spotlight of attention toward stimuli that resonate with emotional salience and cognitive relevance. In the neuroscientific theater of attention, celebrity endorsements emerge as spotlight-stealing protagonists (Nelson and Deborah, 2017). Electroencephalographic (EEG) recordings unveil the temporal dynamics of attention capture, where fluctuations in neural oscillations, particularly in the gamma and theta bands, delineate the ebb and flow of attentional engagement. The brain, akin to a vigilant conductor, orchestrates these neural frequencies to amplify attentional resonance when encountering stimuli

featuring trusted and familiar celebrities. Functional magnetic resonance imaging (fMRI) further unveils the neural substrates underlying attention capture. The anterior cingulate cortex, a neural hub implicated in attentional processes, exhibits heightened activity when consumers are exposed to celebrity-endorsed stimuli. This heightened activation signifies an augmentation of attentional resources, indicating that the brain is directing its focus toward the endorsed brand in a manner akin to the gravitational pull of a celestial body. Brain's limbic system, particularly the amygdala, assumes a pivotal role in the attentional symphony choreographed by celebrity endorsements. As emotional gatekeeper, the amygdala modulates attentional priorities based on the emotional salience of stimuli. When a celebrity endorser is seamlessly integrated, emotional resonance amplifies, capturing the audience's attention with heightened efficacy (Paul and Bhakar, 2018).

#### (iv) In-store behavior

Neuromarketing studies employing eye-tracking technologies provide insights into the gaze patterns and visual attention that dictate in-store behavior. Celebrities, as attention magnets, draw the gaze of consumers, influencing their navigation through the store and directing attention toward endorsed products (Schartel Dunn and Nisbett, 2023). Eye-tracking heatmaps reveal focal points where the presence of a celebrity, strategically placed within promotional displays, captures and sustains visual attention. The brain's reward centers, including the ventromedial prefrontal cortex, play a role in shaping in-store behavior (Yu and Hu, 2020). Celebrity endorsements, by virtue of their positive associations and emotional resonance, activate these reward centers, contributing to the pleasure and satisfaction derived from the shopping experience. Neuromarketing insights derived from fMRI studies showcase how these reward centers influence product preferences and purchasing decisions, ultimately shaping the consumer's in-store journey (Kamins et al., 1989). The spatial dynamics of in-store behavior are further elucidated by neuromarketing investigations utilizing spatial analysis techniques. Consumers, under the influence of strategically placed celebrity endorsements, exhibit distinctive movement patterns within the store. Neuroscientific evidence highlights how the brain's spatial cognition, guided by positive associations

with the celebrity endorser, influences the selection of pathways and the exploration of product displays (Fan et al., 2023). The emotional contagion facilitated by celebrities extends to the social dynamics of in-store behavior. Neuromarketing studies leveraging social neuroscience principles unravel how the presence of a celebrity can create a shared emotional experience among shoppers, fostering a sense of community and camaraderie (Li et al., 2023). This communal emotional resonance contributes to the overall ambiance of the store, influencing purchasing decisions and brand perceptions.

## (v) Neurofeedback for Optimization

Neurofeedback represents a dynamic loop where the neural reactions of consumers, captured through advanced neuroscientific methodologies, inform the strategic refinement of advertising campaigns (Aw and Labrecque, 2020). EEG, captures the temporal nuances of brain activity when consumers engage with celebrityendorsed content. By analyzing the oscillatory patterns in specific frequency bands, marketers gain access to valuable information about the audience's cognitive engagement, emotional resonance, and attentional focus. This neurofeedback loop enables the optimization of campaigns by identifying peak moments of neural receptivity and tailoring content accordingly (Jun et al., 2023). fMRI contributes to the neurofeedback narrative by providing spatial insights into the brain's response to celebrity endorsements. The real-time visualization of neural activations in regions associated with emotion, trust, and attention offers marketers a nuanced understanding of how different elements of an endorsement elicit specific neural responses (Kalra et al., 2023). This knowledge becomes a compass for optimizing content elements to align more effectively with the audience's neural preferences. By incorporating measures of social resonance, marketers can optimize campaigns to leverage the communal and emotional impact of celebrity endorsements (Kingsnorth, 2022). Social neurofeedback becomes a tool for refining the narrative to resonate not only with individual brains but also with the shared neural experiences within a social context. Neurofeedback for optimization in neuromarketing aligns with the principles of machine learning and artificial intelligence. The integration of algorithms that process and interpret neural data in real time allows for automated adjustments to advertising content, ensuring that

campaigns are continuously refined based on the ever-evolving neural preferences of the target audience (Liu and Liu, 2019)

#### (vi) Brand Differentiation

The brain's prefrontal cortex, responsible for higher-order cognitive functions and decision-making, exhibits unique activation patterns when consumers encounter brands endorsed by celebrities. This neural fingerprint contributes to the establishment of a differentiated brand identity by creating associations that set the endorsed brand apart from its competitors. Celebrity endorsements serve as a powerful tool for brand differentiation, leveraging the neural intricacies of the consumer mind to carve a distinctive identity within the competitive landscape (Aw and Labrecque, 2020) The concept of social identity theory within neuromarketing further emphasizes how celebrity endorsements contribute to brand differentiation (Yu and Hu, 2020). By aligning a brand with a celebrity whose persona resonates with specific social groups, marketers can tap into the brain's social cognition networks, fostering a sense of belonging and differentiation among target audiences (Hinojosa et. al, 2017).

### (vii) Social Media Amplification

The advantage of social media amplification lies in its influence on shaping consumer perceptions, emotions, and behavior through strategic deployment of celebrity endorsements in the digital landscape (Chung and Cho, 2017). Brain's ventral striatum, exhibit heightened activation when individuals interact with social media content featuring celebrity endorsements. This neurological response forms the foundation for the creation of emotionally resonant content that captures attention and engagement, leveraging the persuasive power of celebrities within the digital ecosystem. Temporal dynamics, explored through EEG investigations, provide insights into the real-time neural oscillations that occur during consumer interactions with celebrity-endorsed content on social media platforms. Understanding these neural signatures becomes imperative for tailoring content that aligns seamlessly with the brain's inherent inclination for social engagement, thus enhancing the effectiveness of celebrity-driven neuromarketing strategies. Neuroscientific inquiries into emotional

processing, orchestrated by structures such as the amygdala and mirror neuron systems, elucidate how the emotional impact of celebrity endorsements permeates through digital networks. This fosters a collective emotional response among users, contributing to the amplification of brand messages within the social media ecosystem. Witnessing peers engaging with celebrity-endorsed content activates mirror neurons, creating a neural resonance that encourages similar behaviors (Gupta, 2018). This neural mirroring effect becomes a key mechanism driving the amplification of brand messages within the intricate neural networks of the digitally connected audience. Social media amplification in neuromarketing transforms celebrity endorsements into a digital spectacle where the brain's social wiring is harnessed for brand messaging. By understanding and leveraging these neural dynamics, marketers can strategically utilize social media platforms to create content that not only captures attention but also resonates deeply within the neural fabric of the digitally connected audience, maximizing the impact of celebrity-driven neuromarketing endeavors.

#### 1.11.2 Limitations of neuroscience based celebrity endorsements

#### (i) Individual Variability

One of the prominent limitations inherent in neuromarketing-based celebrity endorsements is the substantial individual variability in neurobiological responses among consumers (Hussain et al., 2023). The intricate neural processes underlying responses to celebrity endorsements can differ significantly from one individual to another. Factors such as personal preferences, cultural background, and individual life experiences contribute to the diverse ways in which people interpret and react to celebrity-driven marketing stimuli (Ahmadi et al., 2023). What may elicit positive emotions and engagement in one person might not evoke the same reactions in another. A strategy that resonates profoundly with a subset of the target audience may not have the same impact on individuals with divergent neural responses. This makes it challenging to develop universally compelling content that can garner widespread positive reactions (Bergkvist and Zhou, 2016). Navigating the intricacies of individual variability requires a nuanced understanding of the diverse ways in which the brain processes and evaluates celebrity endorsements. Marketers must consider tailoring their

strategies to account for this variability, potentially segmenting their target audience based on neurobiological response patterns to optimize the effectiveness of celebrity endorsements across diverse consumer groups.

# (ii) Context Dependence

The success of a celebrity endorsement is linked to the alignment between the celebrity, the endorsed product, and the brand image. A celebrity may be well-received in one context but may not necessarily resonate with a different product category or brand identity (Chen et al. 2021). For example, a renowned athlete endorsing sports equipment might evoke positive emotions, but the same athlete endorsing a luxury perfume may not elicit the desired neural responses. Neurological responses to celebrity endorsements are highly contingent on the specific context in which they are presented, encompassing variables such as the nature of the product or brand, cultural considerations, and the timing of the endorsement (Escalas and Bettman, 2017). Cultural nuances play a pivotal role in shaping consumer perceptions. A celebrity who is highly esteemed in one cultural context may not enjoy the same level of recognition or admiration in another. Neuromarketing studies must consider the cultural backgrounds of the target audience to ensure that the celebrity endorsement aligns with cultural preferences and values, maximizing its impact. The timing of a celebrity endorsement can significantly impact its effectiveness (Manchanda et al. 2021). Current events, societal trends, and even the timing within a specific advertising campaign can influence how the audience perceives the endorsement. A celebrity who is popular at a particular moment may lose relevance if not strategically timed, affecting the neural responses and overall success of the marketing strategy (Tseng and Wang, 2023).

# (iii) Overexposure and Desensitization

Continuous and repetitive exposure to celebrity-driven content, especially through prevalent channels such as social media, can diminish the emotional impact and novelty of the endorsement, resulting in diminished neural responses and overall effectiveness (Yue et al., 2023). Neuroscientific studies emphasize the importance of emotional engagement in influencing consumer behavior. However, when audiences encounter the same celebrity endorsing various products or appearing frequently in

promotional content, the initial emotional response may wane (Kumar et al., 2023). The brain's reward centers, which initially respond to novelty and excitement, can become less activated with repeated exposures, leading to a diminished emotional impact (Kingsnorth, 2022). Overexposure may render the celebrity endorsement less persuasive over time. Neural habituation, wherein the brain becomes accustomed to a stimulus, can reduce the endorsement's ability to capture attention and influence consumer decision-making (Shimul et al., 2022). This phenomenon poses a challenge for marketers aiming to sustain the persuasive power of celebrity endorsements throughout extended marketing campaigns (Yang et al., 2023). Frequent encounters with celebrity endorsements can contribute to audience fatigue. Consumers may become indifferent or even irritated by the repetitive nature of celebrity-driven content, potentially leading to disengagement (Dermirkan and Li, 2022). The desensitization process may result in audiences actively avoiding or ignoring celebrity-endorsed messages, undermining the intended impact of the neuromarketing strategy. Marketers must carefully consider the frequency and distribution channels of celebrity endorsements to mitigate the risk of overexposure (Bevan-Dye, 2020). Strategies such as varying the types of endorsements, incorporating storytelling elements, and strategically timing the releases can help maintain audience interest and prevent desensitization (Calvo-Porral et al., 2021). Additionally, monitoring audience feedback and adjusting the frequency of celebrity-driven content based on neuroscientific insights can contribute to a more sustainable and impactful neuromarketing approach. Achieving a balance between creating novel and attention-grabbing content while maintaining a consistent brand image is crucial. Marketers may need to explore creative approaches, such as collaborations with multiple celebrities or integrating diverse storytelling techniques, to keep the content fresh and captivating for the audience.

#### (iv) Ethical considerations

The integration of neuromarketing techniques in celebrity endorsements introduces a set of ethical considerations that marketers must navigate conscientiously (Ismaila et al., 2020). These considerations revolve around the potential manipulation of consumer behavior through the exploitation of neural responses, privacy concerns

related to neuroscientific data collection, and the transparency of the neuromarketing process (Lee and Chen-Yu, 2018). One primary ethical concern involves obtaining informed consent from consumers regarding the collection and utilization of their neuroscientific data. Neuromarketing studies often involve monitoring brain activity through technologies such as EEG or fMRI. Ensuring that consumers are aware of, and consent to, the neuroscientific data collection is essential to uphold principles of privacy and autonomy (Brooks et al., 2021). The transparency of neuromarketing practices is crucial to maintaining ethical standards. Marketers employing neuroscientific insights to optimize celebrity endorsements should be transparent about the methods used, the purpose of the research, and how the collected data informs advertising strategies (Choi et al. 2023). Transparent communication fosters trust and allows consumers to make informed decisions about the products or brands they choose to engage with. Neuromarketing's capacity to uncover subconscious preferences and influence consumer behavior raises ethical questions about the potential for manipulation (Johansson and Bozan, 2017). The use of neuroscientific insights to strategically design celebrity endorsements that exploit cognitive vulnerabilities prompts considerations about the responsibility of marketers to uphold ethical standards and avoid manipulative practices (Singh and Banerjee, 2018). Ethical considerations extend to the impact of celebrity endorsements on consumer well-being. Marketers must weigh the potential benefits of neuro-scientifically optimized endorsements against the risk of fostering unrealistic expectations, social comparison, or promoting materialism (Gauns et al. 2018). Ensuring that marketing practices contribute positively to consumer welfare is imperative to uphold ethical standards (Pradhan et al., 2016). Navigating the evolving landscape of neuromarketing ethics requires adherence to existing regulations and guidelines (Kaur and Garg, 2016). Marketers must stay informed about ethical frameworks established by regulatory bodies and industry associations, ensuring that their neuromarketing practices align with established norms and principles.

### (v) Costs and feasibility

Employing technologies like fMRI or EEG for assessing neural responses can incur significant costs in terms of equipment, expertise, and data analysis. Marketers

must evaluate the return on investment (ROI) to determine the economic viability of integrating neuromarketing into celebrity endorsement campaigns. The expertise needed to interpret neuroscientific data and translate it into actionable marketing insights is a critical factor in the feasibility of neuromarketing strategies (Freire et al., 2017). Employing professionals with the requisite neuroscientific knowledge and analytical skills adds to the overall costs. Additionally, ongoing training and skill development are necessary to keep pace with advancements in neuromarketing methodologies (Ha and Lam, 2017). The accessibility of neuroscientific technologies such as fMRI or EEG poses a feasibility challenge. These technologies may not be readily available or affordable for all marketers, particularly smaller businesses with budget constraints. The limited availability of such advanced equipment can hinder the widespread adoption of neuromarketing strategies across industries. The vast amount of data generated by neuroscientific studies necessitates sophisticated processing and analysis. Feasibly managing and interpreting this data requires advanced computational capabilities and skilled data analysts (Marwick, 2015). The costs associated with data processing tools, software, and personnel contribute to the overall feasibility considerations (Erfgen et al., 2015). Scaling neuromarketing-based celebrity endorsements for broader marketing campaigns introduces challenges related to the generalizability of findings (Palalic et al. 2020).

Neuroscientific studies often involve relatively small sample sizes, raising questions about the applicability of results to larger and diverse consumer populations (Argyris et al., 2021). Achieving scalability while maintaining the validity of neuroscientific insights is a complex consideration. Marketers must carefully weigh the costs associated with neuromarketing against the potential benefits in terms of enhanced campaign effectiveness (Batra and Keller, 2016). Evaluating the feasibility involves considering factors such as the scope of the campaign, target audience characteristics, and the specific goals of the celebrity endorsement. This evaluation assists in determining whether the investment in neuromarketing aligns with the overall marketing strategy and organizational resources.

## (vi) Lack of Long-Term Predictive Power

While these techniques provide real-time data on immediate consumer responses, their ability to forecast long-term behavioral trends and sustained impact remains a challenge (Duthie et al., 2017). Consumer preferences and behaviors are dynamic and influenced by various external factors over time. Neuromarketing studies, often conducted in controlled environments, may capture immediate reactions to celebrity endorsements (Kalra et al., 2023). However, predicting how these responses will evolve over an extended period, considering changing trends and societal influences, poses challenges. The long-term effectiveness of a celebrity endorsement hinges on the sustained positive perception of the celebrity by the public (Wyer and Kardes, 2020). Celebrities' images can undergo transformations due to personal or public events, potentially altering the impact of their association with a brand. Neuromarketing techniques may not inherently account for these dynamic shifts in the long-term trajectory of a celebrity's influence (Rifon et al., 2023). Cultural and social contexts evolve, influencing consumer preferences and attitudes. What resonates with audiences at a specific point in time may not hold the same appeal in the future. Neuromarketing insights may not fully capture the changing cultural dynamics that contribute to the long-term success or decline of a celebrity-endorsed campaign. Over time, a brand's image may evolve independently of the celebrity endorser. Factors such as changes in marketing strategies, competitive landscape, or product innovations can impact how consumers perceive and engage with a brand (Li et al., 2023). Neuromarketing, focused on immediate responses, may struggle to predict the enduring effects of these changes on consumer behavior. To address the lack of long-term predictive power, marketers employing neuromarketing in celebrity endorsements should complement neuroscientific insights with comprehensive market research, trend analysis, and ongoing monitoring of brand performance (Schartel Dunn and Nisbett, 2023). Integrating traditional marketing methodologies alongside neuroscientific approaches enables a more holistic understanding of the dynamic factors shaping consumer behavior over time (McCormick, 2016). Conducting longitudinal studies that track consumer responses and brand perceptions over extended periods can contribute to a more nuanced understanding of the enduring impact of celebrity endorsements.

Continuous monitoring allows marketers to adapt strategies based on evolving trends and ensures responsiveness to shifts in consumer sentiment.

## (vii) Interpretation Complexity

Neuroscientific data inherently reflects the subjective nature of individual responses. Different consumers may exhibit varied neural patterns in response to the same celebrity endorsement, influenced by personal experiences, cultural backgrounds, and cognitive biases (Saima and Khan, 2020). Deciphering the significance of these diverse responses demands a sophisticated understanding of individual differences and the contextual factors shaping neural activation. Neural responses are influenced by a myriad of factors, including emotions, memories, and cognitive processes (Shah et al., 2023). Celebrity endorsements elicit complex emotional and cognitive reactions, and distinguishing between the specific elements contributing to neural activity requires a nuanced approach. Integrating neuroscientific findings with other research methodologies becomes essential to unravel the multifaceted influences on brain activity. The influence of celebrities on consumer perceptions is dynamic, evolving over time. Interpretation complexity arises as marketers seek to understand not only immediate responses but also the enduring impact of a celebrity endorsement. Changes in the cultural landscape, public opinion, and the celebrity's own trajectory necessitate continuous interpretation to adapt marketing strategies effectively (Lee and Thorson, 2008). Interpreting neuroscientific insights in isolation may oversimplify the complex landscape of consumer behavior. Marketers face the challenge of integrating neuroscientific findings with traditional metrics such as sales data, brand sentiment, and market share (Priyankara et al., 2017). Bridging the gap between neural responses and tangible business outcomes requires a comprehensive analytical framework.

## 1.12 Synopsis of the chapters

Chapter 1 provides an overview of celebrity endorsements and how their influence impact consumer preferences. The chapter establishes the research objectives

and outlines the structure of subsequent chapters. It explores how celebrities have become powerful influencers in shaping consumer choices, emphasizing the role of personal connections and aspirational elements in driving purchasing decisions. The chapter examines the influence of celebrity endorsements on consumer preferences and introduces the concept of neuromarketing as a tool for understanding consumer behavior at a neurological level. It outlines how neuromarketing employs neuroscience techniques to analyze subconscious responses, exploring the potential applications and advantages of using this approach in the realm of celebrity endorsements. Focused specifically on the footwear industry, this part explores the unique aspects of consumer neuroscience related to footwear. It examines how neurological responses can be particularly pertinent in understanding consumer preferences and decision-making processes when it comes to footwear choices. Chapter 2 provides comprehensive exploration of Indian footwear industry, celebrity endorsements, neuromarketing, and the neuroscience components of consumer preferences. Chapter 3 provides the blueprint for the research, outlining the strategies and methods employed to achieve the study's objectives. Chapter 4 presents the outcomes of the research, analysis of the data and its interpretation. Chapter 5 provides the major findings of the research, addressing the three primary objectives along with the theoretical and practical implications. A discussion is presented to provide context for the interpretation of the findings, ensuring a balanced understanding of the research scope and constraints.

# **CHAPTER 2**

## REVIEW OF LITERATURE

This chapter serves as a detailed exploration of existing research in the field, aiming to deepen the understanding of the research topic, evaluate previous findings, and identify notable research gaps. This critical analysis of the existing body of knowledge lays the foundation for the current study by providing context, highlighting trends, and guiding the research questions. The primary objective of this literature review is to enhance the researcher's understanding of the chosen research topic. By synthesizing relevant literature, the chapter aims to establish a comprehensive context for the study, defining key concepts and theories that inform the research design. The review critically evaluates the findings of previous studies related to celebrity endorsements, consumer preferences, and neuromarketing. This appraisal involves a detailed examination of methodologies, variables, and outcomes of prior research. By assessing the strengths and limitations of existing studies, the chapter seeks to identify patterns, inconsistencies, and gaps in the literature, contributing to a nuanced understanding of the complex dynamics surrounding celebrity endorsements in the context of consumer preferences. An integral aspect of the literature review is the identification of research gaps that warrant further investigation. This involves a meticulous analysis of areas where existing studies fall short or where inconsistencies and contradictions persist. The chapter aims to identify these gaps to justify the need for the current research, offering a rationale for its contribution to the academic landscape. By highlighting these gaps, the review allows for the subsequent research questions and hypotheses, outlining the unique contributions the current study aims to make. The insights gleaned from the literature review guide the formulation of hypotheses and research questions. The chapter concludes by drawing meaningful implications for the current study, emphasizing how it builds upon and contributes to the existing body of knowledge. By aligning with and extending previous research, the

study aims to advance understanding in the field and provide practical implications for marketers and practitioners within the footwear industry.

#### 2.1 Footwear

Lewis (2023) suggests that footwear has been in use since the last 40,000 years with over 9,000 years history usage of the present shoe pattern. Historically, footwear has been recognized as an essential item, meeting the practical requirements of different human groups. As a fundamental item, footwear has been intricately woven into the fabric of human life, adapting to the unique requirements of various societies over time. Figure 2.1 depicts some historic footwear designs. These designs, crafted from materials as varied as rocks, grass, leather, tree bark, and deer hide, serve as tangible evidence of the creativity and resourcefulness of ancient civilizations. Each design tells a unique story, highlighting the environmental conditions, cultural practices, and lifestyle needs of the communities that crafted them.

Figure 2.1. Early footwear designs



Source. Lewis (2023)

As civilization advanced, the role of footwear evolved from mere practical necessity to a significant component of daily attire. In this progression, both the Egyptians and Greeks stand out for their innovative experimentation, particularly in the development of what can be termed as "platform sandals". These unique open shoes

were crafted on raised platforms, marking a departure from the conventional shoe design. The distinguishing feature of these platform sandals was the incorporation of heavier soles compared to previous footwear designs. This departure from traditional lightweight soles added a practical dimension to the shoes by introducing a novel aesthetic. The thicker soles served both functional and symbolic purposes, contributing to the overall evolution of footwear. The elevated nature of these sandals, both literally and metaphorically, turned them into status symbols. The use of upraised footwear became a visible differentiator of societal hierarchies, marking a distinction between upper-class and lower-class statuses. Figure 2.2 visually presents this significant shift in the development of footwear, from primitive shoes to the emergence of platform sandals. The illustration provides the transformative journey of footwear, highlighting the intricate designs that reflected not only functional considerations but also societal values. The evolution of footwear, as demonstrated by the transition from basic shoes to platform sandals, mirrors the dynamic interplay between fashion, social stratification, and the evolving needs of a society moving forward in time.

Figure 2.2. Development in primitive shoes to platform sandals



Source. Purser (1890)

With the later period, footwear took on a rudimentary yet important form known as footwraps. These were essentially plastic sheets used to cover the foot, providing protection against stones, gravels, dust, and offering a barrier against sweat. Footwraps played a fundamental role in safeguarding the foot from the elements and the challenges presented by different terrains. The use of footwraps was not isolated; they were often

employed in conjunction with shoes and served a role akin to contemporary socks. Before the development of modern-day socks, footwraps were instrumental in enhancing comfort and protection for the foot, forming an essential layer between the foot and the shoe. Soft leather emerged as the preferred material for early shoes, representing a significant leap in the evolution of footwear. Crafted by hand, these early footwear products were meticulously fashioned using simple tools such as hammers and knives. The handcrafted nature of these shoes not only attested to the resourcefulness of ancient craftsmanship but also showcased the practical understanding of the importance of footwear in daily life. Figure 2.3 shows the essence of medieval footwear, showcasing the transition from footwraps to more enclosed shoes. The closed shoes, crafted from materials like soft leather, reflected the evolving needs of foot protection and the beginning of more sophisticated shoe designs.

Figure 2.3. Usage of closed shoes

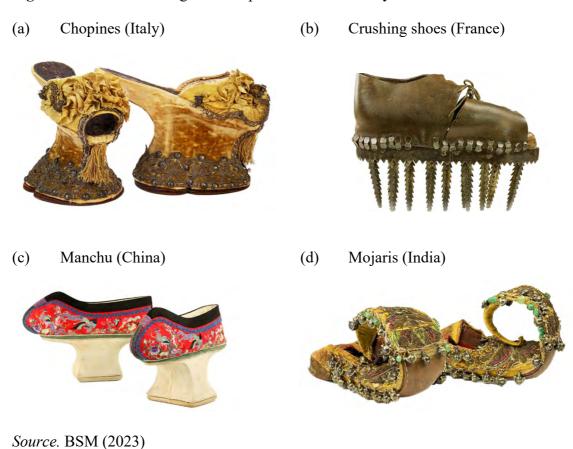


Source. Bibb (2022)

Until the 19th century, the production of footwear underwent dynamic transformations, showcasing a remarkable ability to adapt to the specific demands, stylistic preferences, and cultural identities of diverse societies. As suggested by DeFillippi et al. (2007), footwear was not merely a utilitarian item; it became an integral part of cultural expressions, reflecting societal norms and responding to the evolving tastes of different communities. During this period, the crafting of footwear was not a standardized process; rather, it embraced diversity to cater to the unique preferences

and cultural nuances of each society. Footwear designs were intricately intertwined with the fabric of societal norms, taking into account the functional needs, climatic conditions, and even the aesthetic sensibilities of different regions. Figure 2.4 illustrates the development of footwear designs in alignment with societal norms, desires, and cultural identities. The depiction captures the kaleidoscope of styles and forms that emerged from the diverse demands of various communities. From intricate embellishments to specific structural elements, each design reflects the unique narrative of the society that produced it. The adaptation of footwear to cultural identities was not merely a matter of aesthetics. It also encompassed the utilization of materials indigenous to specific regions, incorporating local craftsmanship techniques, and responding to climatic considerations. Footwear became a canvas through which communities expressed their distinctiveness, forming an integral part of their cultural heritage.

**Figure 2.4.** Footwear designs development till 19<sup>th</sup> century



The inception of the industrial revolution in the 1850s marked a significant turning point for the footwear industry, leading to the formal establishment of largescale manufacturing processes. One of the groundbreaking innovations during this era was the introduction of the "Goodyear Welt Sewing Machine," which revolutionized the process of sewing for industrial purposes. This technological advancement allowed for faster and more efficient production of footwear, setting the stage for mass manufacturing. A major development during this period was the patenting of rubber heels, a notable departure from traditional leather heels. Rubber, being more costeffective and durable, gradually replaced leather heels, which had a shorter commercial lifespan. This shift in materials marked a significant economic and functional improvement in the production of footwear. The emergence of rubber as a key material in the footwear industry gained further momentum with the patenting of rubber heels. The year 1917 witnessed a milestone with Keds, a major industry player, introducing the first mass-produced rubber footwear, later termed as "sneakers". This marked the popularization of athletic and casual footwear, setting the stage for the global sneaker culture that would follow. The industrialization of the footwear industry saw rapid technological developments, leading to the active utilization of rubber, plastics, adhesives, synthetic materials, machine stitching, and product gluing. These innovations replaced traditional hand-made stitching, significantly enhancing the efficiency and output of the manufacturing process. The capability to produce as many as 1,200 pairs of shoes in a single day demonstrated the transformative impact of industrialization on the scale and speed of footwear production. These developments reshaped the manufacturing landscape by democratising access to footwear, making it more affordable and accessible to a broader population. The integration of advanced technologies streamlined production by paving the way for the diverse and technologically advanced footwear options we see in the contemporary market.

### 2.2 Celebrity Endorsements

Celebrity endorsements is an advertising strategy where well-known individuals promote a product, service, or brand. This marketing approach leverages the popularity,

credibility, and influence of celebrities to create a positive association with the endorsed entity, aiming to enhance brand visibility, credibility, and consumer trust. (Saima and Khan, 2020). Celebrities often embody certain aspirational qualities, and their endorsement can evoke positive emotions, aspirations, and desires among consumers. This emotional connection can influence consumer perceptions, preferences, and purchasing decisions, contributing to brand loyalty. McGuire's (1985), provided a model which can be used to understand how celebrities function as peripheral cues in shaping consumer attitudes and decision-making. It suggests that, celebrities play a role as peripheral cues, influencing consumers' attitudes indirectly through a process known as affect transfer. Affect transfer refers to the mechanism by which the positive feelings and attributes associated with a celebrity are transferred to the endorsed product or brand. McGuire posits that consumers, when exposed to a celebrity endorsing a particular product, unconsciously transfer their pre-existing positive emotions and perceptions of the celebrity onto the endorsed item Hovland et al. (1953). This affective transfer operates on the periphery of the consumer's cognitive processing, meaning that it occurs without an in-depth analysis or scrutiny of the product's intrinsic qualities. Instead, the positive feelings associated with the celebrity serve as a shortcut, influencing the consumer's overall attitude toward the endorsed brand. The celebrity functions as a persuasive peripheral cue that shapes the consumer's emotional response and attitude toward the endorsed product. McGuire's model highlights the role of emotions and peripheral cues in the decision-making process. It suggests that while central cues involve a thorough evaluation of product attributes, peripheral cues, such as celebrity endorsements, rely on emotional responses and associations.

#### 2.2.1 Celebrity attachment

The concept of celebrity attachment explores the emotional connections individuals form with celebrities and the subsequent impact on consumer behavior (Um and Jang, 2020). This theoretical framework suggests that consumers develop emotional bonds with celebrities aligned to interpersonal relationships, influencing their attitudes, preferences, and purchasing decisions. The emotional bonding between consumer and celebrity builds social identity and develops aspirations of the consumers

(Shang and Luo, 2021). The phenomenon of individuals aligning with celebrities goes beyond mere admiration; it involves an interplay of shared values, lifestyles, and aspirational qualities. This alignment forms the basis for the creation of a shared social identity, wherein consumers perceive a reflection of themselves in the image cultivated by the celebrity (Wheeler, 2009). This shared social identity becomes a powerful influencer, compelling consumers to not only appreciate the celebrity but also to integrate aspects of their identity into their own. The celebrity endorsement transforms into a mechanism for self-expression, where consumers adopt products endorsed by these celebrities as a tangible manifestation of their desired identity. The products cease to be mere commodities; they become symbolic extensions of the shared identity that consumers have forged with the celebrity. The alignment with a celebrity's image becomes a form of self-expression, allowing consumers to communicate their values and aspirations to the world (Ohanian, 1990).

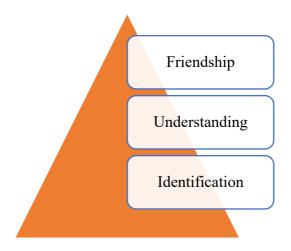
The endorsed products serve as a canvas upon which consumers paint a narrative of their desired identity, drawing inspiration from the values and qualities embodied by the celebrity. This process of identity projection through product adoption is not only personal but also social, as consumers seek to align themselves with a broader community that shares similar affiliations with the endorsed celebrity. While the immediate effects may be observable in altered attitudes or purchasing decisions, the theory implies a lasting imprint on consumer consciousness. Celebrity attachments, like interpersonal relationships have a period of existence for long term duration. This longevity introduces the notion that emotional bonds established with a celebrity figure can endure beyond the immediate context of a campaign. The temporal aspect introduces an element of brand legacy associated with celebrity endorsements. If emotional bonds persist, they can potentially contribute to a brand's enduring legacy, creating a narrative that transcends individual campaigns. Brand storytelling supports that brands construct narratives that relate with consumers on a deeper, emotional level. undertaking cyclical impact of repeated endorsements. Subsequent collaborations with the same celebrity may only reinforce existing emotional bonds and also build upon the narrative established in previous campaigns.

#### 2.2.2 Parasocial influence

Parasocial influence implies the psychological phenomenon where individuals form a sense of connection, attachment, or influence with celebrities despite the lack of real-life interaction. This one-sided, mediated relationship often arises through exposure to media content, including television, social media, or other forms of entertainment. The term parasocial implies a quasi-social interaction, where individuals feel a personal connection with a media figure who, in reality, remains unaware of their specific audience member. The phenomenon is driven by the perceived intimacy and accessibility that media provides, creating a sense of familiarity and closeness between the audience and the media personality. Parasocial influence can manifest in various ways, impacting individuals' attitudes, preferences, and behaviors. Fans may adopt the opinions or lifestyle choices of their favorite celebrities, influenced by the perceived relationship they have with these media figures.

Parasocial influence can be explained through the tri-dimensional framework of friendship, understanding, and identification providing an understanding about the multifaceted nature of these relationships. Friendship, as characterized by intimacy and liking, denotes a mutual connection that develops between audiences and celebrities through repeated exposure. This dimension reflects the emotional bond viewers feel, akin to a genuine friendship, despite the inherently one-sided nature of the interaction. Understanding, on the other hand, delves into the perceived depth of personal knowledge fans believe they possess about the celebrity (Clark and Wegener, 2009). This dimension highlights the illusion of familiarity that can arise from consistent media exposure, creating a sense of intimacy and insight into the celebrity's life. Identification, the third dimension, introduces a social influence process wherein individuals adopt attitudes or behaviors of the celebrity, especially when associated with perceived benefits (Figure 2.5). This aspect underlines the impact of parasocial interaction on shaping not only emotional connections but also influencing behavioral choices based on the celebrity's preferences.

Figure 2.5 Parasocial influence model



#### 2.2.3 Dual Entertainment Path Model

The Dual Entertainment Path Model of Brand Endorsement seeks to explain the dynamics between celebrity endorsements, consumer engagement, and brand perception. Developed as a theoretical foundation for understanding the nature of celebrity-driven advertising, this model introduces two distinct paths through which consumers derive entertainment value from brand endorsements. In the first path, consumers are entertained primarily by the inherent appeal and characteristics of the celebrity endorser (Hung, 2014). This involves the celebrity's charisma, relatability, and the personal traits that captivate audiences. Consumers find enjoyment in the celebrity's persona, and this entertainment value directly transfers to the endorsed brand. The celebrity becomes a central element in the consumer's entertainment experience, influencing how they perceive and engage with the associated product or service. The second path emphasizes the entertainment derived from the narrative and values embedded in the brand endorsement. Here, consumers find enjoyment in the storytelling, creativity, and alignment of the brand with their own values. The brand itself becomes a source of entertainment, and the celebrity serves as a conduit for delivering this entertaining narrative (Roy and Mishra, 2018). Consumers engage with the brand not only because of the celebrity but also because of the compelling and entertaining story that unfolds through the endorsement. The model proposes that these two paths are not mutually exclusive but rather interact dynamically to create a synergistic effect.

The entertainment value derived from the celebrity's persona combines with the narrative and values of the brand, enhancing the overall consumer experience. The dual paths reinforce each other, creating a more compelling and memorable endorsement that resonates with the audience on multiple levels. The model enables marketers to differentiate the marketing strategies for fans and non-fans of celebrity endorser. The differentiation has been deemed to be necessary considering that fans have higher probability to follow the celebrity and the products that they celebrities are endorsing. However, non-fans have a higher probability of adopting a skeptical outlook towards celebrity endorsed products and corresponding lower propensity to the purchase such products. For nonfans, understanding and leveraging the playful motive becomes paramount, suggesting that humorous and fun advertisements are likely to be favorably received and shared via social media. For celebrity and talent agencies, the model suggests the need of maintaining a celebrity's visibility and frequency in mass media. This keeps consumers emotionally engaged and provides ongoing opportunities for different consumer groups to indulge in fantasy and enjoyment associated with the celebrity. The model suggests that consistent media appearances contribute to strengthening the celebrity-consumer bond, a factor for long-term brand endorsement success.

#### 2.2.4 Elaboration likelihood model (ELM)

The Elaboration Likelihood Model (ELM) is a dual-process theory of persuasion. This model explains how individuals process persuasive messages and make decisions based on the level of elaboration, or cognitive scrutiny, they apply to the information. ELM proposes two routes of persuasion: the central route and the peripheral route. Central route processing is a cognitive processing strategy wherein the route is characterized by a thorough and systematic examination of persuasive information. When individuals engage in central route processing, they invest considerable cognitive effort in carefully evaluating the content, arguments, and evidence presented in a persuasive message. It involves elaborative processing wherein when individuals engage in central route processing, they carefully evaluate and

scrutinize the content of a persuasive message. This involves a high level of cognitive elaboration, where the person thinks deeply about the information, considers the arguments presented, and forms attitudes or beliefs based on the merits of the message. Systematic Persuasion suggests that messages processed through the central route are likely to result in more enduring attitude changes. This route is effective when the audience is motivated and able to process information critically. Central route processing is more likely to occur when individuals are highly motivated to process information and find the message personally relevant (Bergkvist and Zhou, 2016). If the topic is of significant importance or relevance to the person, they are more likely to engage in this detailed cognitive processing (Maio et al., 2019). Successful central route processing requires cognitive resources, meaning the individual must have the mental capacity and focus to engage in in-depth analysis. Factors such as distractions or cognitive load may hinder central route processing. People vary in their propensity to engage in central route processing (Teeny et al., 2021). Some individuals naturally prefer to scrutinize information deeply, while others may rely more on peripheral cues or heuristics. For instance, an example of central route processing might be a consumer carefully evaluating the features and benefits of a new shoe before making a purchase decision. Marketing strategies aimed at encouraging central route processing often involve providing detailed information, strong arguments, and compelling evidence to engage the audience's cognitive faculties.

Peripheral route processing is a cognitive processing strategy which relies on cues and heuristics that are not directly related to the substantive content of the message. This route is characterized by the use of mental shortcuts and quick judgments based on peripheral cues rather than in-depth consideration of the message. These cues can include factors like the attractiveness of the speaker, the use of humor, or the presence of celebrities. Herein, heuristic processing suggests that peripheral route processing involves less cognitive effort. Individuals rely on heuristics or mental shortcuts, such as the credibility of the source or the attractiveness of the message, to make judgments without deeply scrutinizing the content. Superficial persuasion suggests that messages processed peripherally may lead to temporary attitude changes.

This route is effective when the audience is less motivated or lacks the ability to engage in detailed processing (Susmann et al., 2022). Peripheral route processing is more likely to occur when individuals have low motivation or involvement in the topic. If the message is not personally relevant or doesn't capture the person's interest, they may opt for peripheral processing. Appeals to emotions, such as humor, fear, or joy, are common in peripheral route processing. These emotional cues can play a significant role in shaping attitudes and behaviors without requiring detailed cognitive scrutiny. Peripheral processing is characterized by rapid decision-making (Duthie et al., 2017). Individuals may form attitudes or make choices based on easily accessible and quickly processed information (Briñol and Petty, 2009). An example of peripheral route processing might be a consumer choosing a shoe based on an attractive packaging design without considering the sole quality or build strength. Advertisers often leverage peripheral cues, such as using likable spokespersons or creating emotionally appealing advertisements, to influence attitudes through this processing route (Gotlieb and Swan, 1990). While changes in attitudes through peripheral processing may be more superficial and temporary, they can still have a significant impact, especially in situations where individuals are not highly motivated to engage in detailed thinking (Luttrell and Petty, 2021).

### 2.2.5 Source attractiveness model

The Source Attractiveness Model is a theoretical framework that explores how the perceived physical attractiveness and likability of a communicator or source impact the effectiveness of persuasive communication (Choi et al., 2023). Figure 2.6 explains that physical attractiveness, a central element of the model, draws on principles from social psychology, positing that individuals are more susceptible to persuasion when confronted with sources deemed physically attractive. Unlike physical attractiveness, which primarily revolves around aesthetic appeal, likeability, another key element, examines the source's broader social traits, encompassing affability, approachability, and overall positive qualities (Wang and Scheinbaum, 2018). The likability of the endorser plays a role in shaping consumer perceptions and influencing the effectiveness of persuasive communication. Likeability encapsulates the audience's perception of the

endorser as someone affable, relatable, and possessing positive social attributes. Celebrities who exude friendliness and approachability are often deemed more likeable by audiences, fostering a sense of connection and resonance (Kahle and Homer, 1985). This holds relevance, as consumers are not merely evaluating the endorser's physical appearance but are also attuned to their personality traits and how well they align with positive social values. The likability of a celebrity endorser becomes a factor in enhancing the persuasiveness of the endorsed message.

Consumers are more receptive to messages delivered by individuals they find likable, and this positive disposition can translate into favorable attitudes toward the endorsed product or brand. Likeability acts as a catalyst for creating a positive emotional connection between the celebrity endorser and the audience (Onua et al., 2019). The relatability and approachability of a likeable celebrity contribute to the formation of parasocial relationships, where consumers perceive a sense of connection and familiarity with the endorser. This parasocial bond intensifies the impact of likeability, as consumers are more inclined to trust and be influenced by figures they consider friendly and relatable (Arief et al., 2023). The interpersonal qualities associated with likeability foster a sense of camaraderie, making the endorser not just a distant celebrity but someone with whom consumers can envision a positive connection. When a celebrity endorser is not only physically attractive but also likeable, their endorsement aligns more seamlessly with the brand's image and values. The perceived friendliness and positive social traits of the endorser contribute to the overall appeal of the marketing message, creating a harmonious and engaging communication experience for the audience. Similarity of the source implies the significance of perceived commonality or resemblance between the communicator and the audience. It suggests that individuals are more likely to be persuaded by sources they perceive as similar to themselves, whether in terms of background, interests, values, or other relevant attributes (Frank and Mitsumoto, 2021). Unlike physical attractiveness and likability, which focus on the source's inherent traits, similarity examines the perceived shared characteristics between the endorser and the audience (Cvirka et al., 2022). This shared ground creates a sense of familiarity and relatability, fostering a connection that

goes beyond the superficial aspects of celebrity allure. Celebrities chosen for endorsements often undergo careful consideration to ensure a perceived similarity with the target demographic. Whether it's shared hobbies, lifestyle choices, or values, the aim is to present the endorser as someone with whom the audience can identify. This identification process is crucial for establishing a parasocial relationship, where consumers feel a sense of connection and camaraderie with the celebrity endorser (Amakyewaa et al., 2021). This shared aspiration or relatability forms the basis for persuasive communication, as consumers are more likely to be influenced by an endorser they perceive as similar to themselves. It implies that the endorser is not an unattainable figure but rather someone who shares common ground with the audience, making the endorsed product or brand more accessible and appealing (Choi et al., 2023). Similarity operates as a bridge between the celebrity's public persona and the diverse identities within the target audience. Brands strategically leverage the perceived similarity between the endorser and the audience to create resonance and authenticity. The idea is to go beyond the celebrity's fame and showcase a genuine connection that transcends the promotional context (Phau and Lum, 2000).

Familiarity emphasizes the role of prior exposure and recognition in shaping individuals' responses to persuasive communication. It posits that individuals are more likely to be persuaded by sources with whom they are familiar. In the context of celebrity endorsements, familiarity plays a pivotal role in influencing how audiences perceive and respond to the endorsed message (Roger and Gunther, 2017). Familiarity encompasses a broader sense of acquaintance, where individuals have had repeated exposure to the celebrity through various channels such as television, movies, social media, or other forms of media. Familiarity contributes to the creation of a parasocial relationship, a one-sided connection where individuals feel a sense of familiarity and comfort with the celebrity, despite not having direct personal interactions. Consumers are more likely to be receptive to a product or brand promoted by a celebrity they recognize and have encountered multiple times. This recognition creates a sense of trust and credibility, as the familiar face becomes associated with a certain level of reliability and authenticity (Ohanian, 1990). Celebrities chosen for endorsements often possess a

high degree of familiarity within their target audience. Whether through a long-standing career, regular appearances in media, or engagement on social platforms, these celebrities become ingrained in the public consciousness. The familiarity factor serves as a shortcut in the decision-making process, as consumers are more inclined to trust and accept recommendations from sources they know. Familiarity aligns with the mere exposure effect, a psychological phenomenon where individuals tend to develop a preference for things merely because they are familiar with them (Frank and Mitsumoto, 2021). The more individuals are exposed to a stimulus, such as a celebrity's image or name, the more positively they tend to perceive it. It implies that repeated exposure to a familiar celebrity creates a positive predisposition toward the endorsed brand or product. It reduces the perceived risk associated with trying a new product or brand by leveraging the positive associations individuals have with the familiar celebrity (Soberman and Xiang, 2022). The element of familiarity enhances the memorability of the endorsed message, as individuals are more likely to remember and recall information associated with a celebrity they already know.

Source Attributes Source Dimensions Receiver Processing Models Result Familiarity Attractiveness (Physical, intellectual, Identification Similarity personality, lifestyle, Athletic) Liking Expertise Attitude Internalization change Credibility Trustworthiness Compliance Power

Figure 2.6 Source attributes model

Source. Adapted from Kelman (1961)

#### 2.2.6 Source credibility model

The Source Credibility Model constitutes a theoretical framework in understanding how a source's perceived credibility shapes the effectiveness of persuasive communication. This model basis expertise and trustworthiness as the defining attributes of source credibility. Expertise is considered as the perceived knowledge, competence, and qualifications of the communicator in a specific domain. It can be defined as "the extent to which a communicator is perceived to be a source of valid assertions" and "high level of knowledge, skill, and proficiency in a particular field, subject, or domain" (Singha and Banerjee, 2018). Expertise revolves around the extent to which a celebrity is viewed as knowledgeable and proficient in relation to the endorsed product or brand. Consumers are more likely to be persuaded when the celebrity possesses relevant expertise. Trustworthiness, encapsulates the perceived honesty, integrity, and reliability of the communicator. Trustworthiness hinges on the public's perception of the celebrity's character and authenticity. Celebrities who embody genuineness, transparency, and positive values are considered more trustworthy endorsers (Wang and Scheinbaum, 2018). It can be understood as "the degree of confidence in the communicator's intent to communicate the assertions he considers most valid" (Roger and Gunther, 2017). This dimension is vital in establishing a meaningful connection between the celebrity and the audience, fostering a sense of reliability and dependability.

Matching expertise involves careful selection of celebrities whose knowledge aligns seamlessly with the endorsed product (Manchanda et al., 2021). Simultaneously, maintaining trustworthiness is an ongoing endeavor for both celebrities and brands. This dimension within the Source Credibility Model emphasizes the importance of ensuring a coherent and authentic connection between the expertise of the celebrity endorser and the nature of the product being promoted (Nelson and Deborah, 2017). The goal is to create a harmonious synergy that resonates with consumers, reinforcing the credibility of the endorsement. Celebrities chosen for endorsements must possess a genuine understanding of the endorsed product, allowing them to communicate its features, benefits, and value proposition convincingly. For instance, selecting a fitness

expert to endorse sportswear or a culinary influencer to promote kitchen appliances enhances the perceived expertise and authenticity of the endorsement. This careful alignment contributes to the overall persuasiveness of the message, as consumers are more likely to trust recommendations from celebrities who are perceived as knowledgeable and credible within the relevant domain. Trustworthiness is a key aspect that permeates the Source Credibility Model, and it is a continuous endeavor for both celebrities and brands involved in the endorsement process (Singh and Banerjee, 2018). Celebrities, as public figures, must consistently manage their public image to uphold trustworthiness. Any actions or behaviors inconsistent with the desired image may compromise the credibility of the endorsement. Brands, on the other hand, should collaborate with celebrities known for their reliability, ethical conduct, and positive public perception to safeguard the credibility of the endorsement. Maintaining the trustworthiness of both the celebrity endorser and the brand is integral to ensuring the long-term effectiveness of the endorsement (La Ferle and Choi, 2005). Consumers are more likely to respond positively to endorsements when they perceive both the celebrity and the brand as trustworthy entities. Kelman (1961) proposed that information emanating from a credible source holds considerable sway over individuals' beliefs, opinions, attitudes, and behaviors. This concept revolves around the process of internalization, where individuals incorporate the information presented by a credible source into their own cognitive framework, leading to a genuine acceptance and adoption of the endorsed message (Argyris et al., 2021). Internalization represents a deep and meaningful level of influence. It goes beyond surface-level agreement or compliance, signifying a genuine acceptance and incorporation of the endorsed message into an individual's belief system. This process is characterized by a profound cognitive shift where the individual not only adopts the presented information but also aligns it with their existing attitudes, values, and perceptions (Ohanian, 1990). When a celebrity is perceived as a credible source possessing attributes such as expertise and trustworthiness, the audience is more inclined to internalize the endorsed message. This internalization fosters a stronger connection between the audience and the endorsed brand and further contributes to a more enduring influence on consumer attitudes and behaviors.

# 2.2.7 Match-up hypothesis

The Match-up hypothesis suggests that the effectiveness of celebrity endorsements depends upon the perceived compatibility or "match-up" between the endorser and the promoted product or brand. It indicates that a strategic alignment between the celebrity and the product enhances persuasive impact on consumers (Bauer et al., 2022). This alignment is not merely about superficial or arbitrary connections, rather, it emphasizes the importance of a genuine and meaningful association that consumers can identify and connect with (Till and Busler, 1998). When consumers perceive this alignment, it contributes to a more compelling and persuasive endorsement. Consumers are, by nature, astute evaluators of authenticity and coherence in advertising messages (Misra and Beatty, 1990). A well-executed match-up, where the celebrity's image, expertise, or lifestyle seamlessly aligns with the product or brand, not only enhances the credibility of the endorsement but also fosters a sense of trust among consumers (Carroll and Ahuvia, 2006). This trust is rooted in the idea that the celebrity genuinely believes in and is knowledgeable about the endorsed product, reinforcing the persuasiveness of the message (Biswa et al., 2006). It has been suggested that "the success of celebrity endorsements is not uniform and can vary significantly based on the degree of alignment or congruence between the celebrity and the product being endorsed" (McCracken, 1989).

According to Bauer et al. (2022), while the traditional understanding of the match-up hypothesis revolves around the congruence between the endorser and the product category, the synergy between the endorser and the specific content of the advertising message should also be harnessed. The suggested findings are to move one step beyond surface-level congruence. At a deeper level of match-up, a celebrity that considers the thematic and narrative elements of the advertising content, significantly influences consumer perceptions and responses. For instance, if a celebrity endorser is aligned with the product and seamlessly integrates into the storyline or messaging of the advertisement, it enhances the persuasive impact on the audience. Adidas selection of brand ambassadors, including Dipika Pallikal, Hima Das, Lovlina Borgohain, Mirabai Chanu, Palak Kohli, Shaili Singh, Rohit Sharma, and Nikhat Zareen, defines a

deliberate effort to match the endorsers with the core identity and values of the brand (BE Staff, 2022). By predominantly associating with sports figures, Adidas leverages the match-up hypothesis effectively. These endorsers resonates with Adidas commitment to athletic performance and excellence and embodies the spirit of sportsmanship and dedication, aligning seamlessly with the brand's identity. This strategic choice extends beyond a mere surface-level fit and moves into a deeper alignment between the endorsers and the brand's values, creating a more authentic and compelling narrative. The limited inclusion of film stars such as Deepika Padukone, Manushi Chillar, and Ranveer Singh suggests a measured approach to match-up. While these film celebrities bring their own appeal, Adidas appears to prioritize endorsers whose personal narratives align more closely with the sports-centric ethos of the brand. This careful selection reflects an understanding that the effectiveness of the match-up hypothesis goes beyond celebrity popularity, emphasizing the importance of thematic resonance and brand congruence (Kamins, 1990).

# 2.2.8 Meaning transfer model

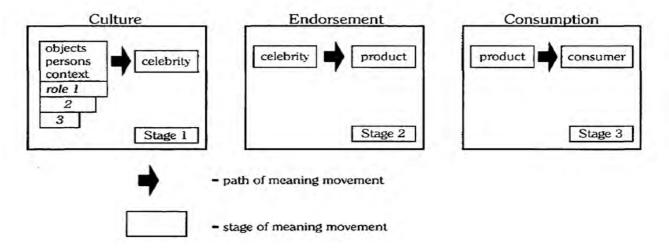
The meaning transfer model is a theoretical framework which examines the intricate process of transferring meaning from a celebrity endorser to a brand or product (Campbell and Warren, 2012). It suggests that the celebrity's existing meanings and attributes can be associated with the endorsed brand, leading to a transference of these meanings onto the product. It explores how the established persona, characteristics, and values of a celebrity can shape the perceived identity of a brand in the eyes of consumers. Celebrities often embody specific traits, lifestyles, or cultural symbols that resonate with their fan base (Hudders and Luo, 2022). The model posits that by aligning a celebrity with a brand, marketers can tap into these pre-existing meanings, fostering a seamless connection between the two entities. According to Galli and Gorn (2011), meaning transfer model indicates that "the transfer of meanings, flowing from the celebrity to the product and ultimately to the consumer". The meaning transfer model offers a distinctive perspective on the influence of celebrity endorsements on consumer behavior, setting itself apart from traditional source attributes models. While source attributes models typically focus on tangible characteristics of the endorser, such as

credibility, attractiveness, or expertise, the meaning transfer model examines the symbolic and semiotic associations (Escalas and Bettman, 2017). Unlike source attributes models that emphasize the direct impact of an endorser's credibility or attractiveness on consumer perceptions, the meaning transfer model operates on the premise that the celebrity's existing meanings and attributes can be strategically associated with the endorsed brand (Erdogan, 1999). The model recognizes that consumers do not merely evaluate the celebrity based on isolated attributes, instead, they interpret the entire persona, lifestyle, and cultural symbolism associated with the celebrity. Figure 2.7 explains the processes involved in meaning transfer model. The culture stage acknowledges that celebrities exist within a broader cultural context. This stage involves the symbolic contextualization of the celebrity within the cultural milieu. It recognizes that each celebrity embodies a set of meanings, values, and cultural associations that resonate with specific audiences (symbolic contextualisation). Celebrities serve as cultural signifiers, embodying certain values, lifestyles, and narratives that are meaningful to their audience. This stage involves the identification and interpretation of these cultural signifiers, understanding the celebrity's role as a carrier of symbolic meanings within the larger cultural landscape (cultural signifiers).

Building on the cultural context, the Endorsement Stage involves the strategic pairing of a celebrity with a brand. This pairing is not solely based on the celebrity's popularity or surface-level attributes but is intricately linked to the symbolic meanings associated with the celebrity in the cultural context (strategic pairing). The central mechanism in this stage is the transfer of symbolic associations from the celebrity to the brand. Marketers leverage the pre-existing meanings attributed to the celebrity, aiming to align these meanings with the brand's identity (Sato et al., 2023). The goal is to create a meaningful connection that goes beyond the functional attributes of the product (symbolic association transfer). The final stage, Consumption, involves the active engagement of consumers in interpreting and internalizing the symbolic associations transferred through the endorsement (Bauer et al., 2022). Consumers play a crucial role in the meaning-making process, actively connecting the cultural signifiers embodied by the celebrity with their own identities, aspirations, and values (consumer

interpretation). Consumers incorporate the endorsed brand into their personal narratives, using it as a tool for self-expression and identity construction. This integration goes beyond a transactional relationship; it becomes a meaningful choice aligned with the consumer's cultural and aspirational preferences (brand integration). The model posits that the symbolic meanings transferred from the celebrity to the brand influence consumer behavior (Rietveld, et al., 2020). This impact can manifest in various ways, including increased brand loyalty, preference, and the adoption of products associated with the endorsed brand as consumers seek to align themselves with the symbolic values represented by the celebrity (behavioral impact).

Figure 2.7 Meaning Transfer Model



Source. Adapted by McCracken (1989)

# 2.3 Neuromarketing

Neuromarketing, at the intersection of neuroscience and marketing, uses advanced technologies to understand the mechanics of consumer decision-making processes. By understanding that consumer choices often involve complex cognitive and emotional factors, neuromarketing aim to bypass traditional self-reporting methods and examine the subconscious realm for designing targeted marketing campaigns. The primary tool in the neuromarketer's analysis is neuroimaging, which includes techniques such as functional magnetic resonance imaging (fMRI), electroencephalography (EEG), eye-tracking, facial coding etc.. These technologies enable researchers to evaluate the brain processes, capturing real-time responses to

stimuli, advertisements, or product experiences. One of the aspects neuromarketing is the exploration of emotional triggers. Emotions, often subconscious, significantly influence purchasing decisions. By monitoring brain activity, neuromarketers can pinpoint emotional responses triggered by specific marketing stimuli which allows for the creation of emotionally resonant campaigns that forge deeper connections with consumers. Eye-tracking studies reveal where individuals focus their attention within an advertisement or store layout, offering valuable insights into visual engagement. Understanding how the brain encodes and retrieves information aids in crafting memorable and impactful marketing messages. Neuromarketing emphasizes the role of sensory experiences. From the feel of a product to the scent of a store, sensory stimuli profoundly impact consumer perceptions. Neuromarketers investigate how sensory input influences brain activity, enabling brands to optimize the multisensory aspects of their offerings.

### 2.3.1 Scheme theory

Schema theory is a component of cognitive psychology which examines into the ways individuals organize and interpret information. A schema represents a mental framework, a cognitive structure molded by experiences, knowledge, and cultural influences. Bartlett (1932) proposed that "individuals possess cognitive structures or schemas that organize their knowledge and expectations about various concepts and objects". These mental representations play a role in information processing, guiding selective attention, interpretation, and memory (Roger and Gunther, 2017). The formation of schemas is an ongoing process, intricately linked to personal experiences and cultural contexts (Huang and Lin, 2022). Schema can also be understood as "an abstract cognitive structure residing in the human mind". Accumulating individual experiences contributes to the development of unique schemas, while shared cultural experiences foster collective schemas that influence how individuals within a culture interpret the world around them (Carbon and Albrecht, 2012). Schemas can manifest in various forms, with social schemas guiding expectations in social situations and event schemas, akin to scripts, dictating expected sequences of events. In the realm of information processing, schemas act as filters, directing attention to schema-relevant details and influencing how new information is interpreted and stored in memory. Schemas are not static entities; they adapt through assimilation and accommodation when individuals encounter new information. This dynamic process allows schemas to adjust, incorporating novel experiences and refining cognitive frameworks. In decision-making, schemas play a role by contributing to the use of heuristics, mental shortcuts that streamline the decision-making process (Liu, 2015). Individuals, guided by schemas, can swiftly assess situations and make judgments based on familiar patterns.

As consumers encounter a familiar celebrity endorsing a product, their cognitive apparatus activates, retrieving stored mental structures that encapsulate perceptions, beliefs, and emotions linked to both the celebrity and the endorsed product. These preexisting schemas are not static entities; rather, they represent dynamic repositories of information that have been gradually shaped and refined through various exposures to the celebrity in diverse contexts. If a consumer has consistently associated a particular celebrity with attributes like athleticism, elegance, or trendsetting behavior, those attributes become integral components of the activated schema. Similarly, the schema pertaining to the endorsed product encompasses prior experiences, advertising messages, and societal narratives that have contributed to the consumer's understanding of the product's qualities and desirability. The process of schema activation is swift and often subconscious, driven by the brain's innate efficiency in processing familiar stimuli. As consumers encounter the celebrity-endorsed product, their neural circuitry orchestrates a symphony of associations, seamlessly integrating the celebrity's persona with the product attributes. Positive schema activations evoke feelings of trust, admiration, and familiarity, creating a favorable backdrop for the endorsed product. Negative schema activations may arise if consumers harbor unfavorable associations with either the celebrity or the product. Perhaps a recent controversy surrounding the celebrity has left a lingering negative impression, or previous experiences with the product have been less than satisfactory. In such instances, the activated schemas might cast shadows on the overall endorsement, influencing consumer attitudes and purchase intentions. Understanding the intricacies of schema activation provides marketers with a roadmap to navigate the neural terrain of consumer decision-making. As the brain

effortlessly weaves together the threads of individual and cultural schemas in response to celebrity endorsements, marketers can strategically leverage these cognitive processes to craft persuasive narratives and forge enduring connections between celebrities, products, and consumer preferences. In neuromarketing, methods such as EEG, fMRI, and eye-tracking play such a role in capturing consumers' physiological and neurological responses, furnishing objective data on consumer reactions. However, employing these techniques, particularly in-person focus groups integrating EEG and fMRI, is not a conventional practice within the domain of neuromarketing (Pandey, 2022). These sophisticated technologies are more commonly associated with research or clinical settings, focusing on the intricate study of brain function and are less prevalent in traditional marketing research methodologies. Neuromarketing entities and brands frequently gravitate toward technologies that are readily accessible and align with their specific requirements. This often leads to a preference for techniques such as facial recognition, eye-tracking, biometrics (which involves measuring physiological responses like heart rate and skin conductance), and implicit association tests (Seel, 2012). These alternative methods serve as viable options, offering valuable insights into consumers' emotional responses, attention levels, and subconscious reactions to various marketing stimuli. The following section explains these neuromarketing techniques.

### 2.3.2 Eye tracking studies

Eye tracking is a sophisticated methodology employed to investigate visual attention and cognitive processes by monitoring the precise movements of the eyes. This technique provides valuable insights into the complex interplay between sensory input, neural processing, and decision-making. By utilizing high-tech infrared sensors, eye tracking allows researchers to map and analyze the trajectory of gaze patterns as individuals interact with visual stimuli. These patterns unveil the neural mechanisms underlying attention allocation, perception, and information processing. Researchers can evaluate how the brain selectively prioritizes certain elements within a visual scene, shedding light on the neural basis of attentional control. Eye tracking unveils subconscious processes, as gaze patterns often reveal information processing that

occurs outside conscious awareness. This capability makes eye tracking particularly valuable in understanding implicit cognitive responses to stimuli. Eye tracking works by employing specialized technologies to monitor and record the movements and positions of the eyes (Carbon and Albrecht, 2012). The primary goal is to understand where a person is looking and how their gaze moves across a visual stimulus, such as an image, webpage, or video. Eye tracking systems use cameras or infrared sensors to capture the movement and position of the eyes. There are various types of eye trackers, including remote and head-mounted devices (Figure 2.8).

Figure 2.8 Illustration of an eye-tracking glass



*Source.* Tim (2019)

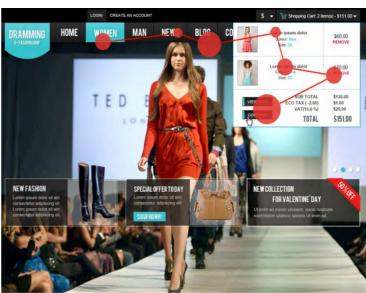
Before the actual tracking begins, users typically go through a calibration process. This involves looking at specific points on the screen to allow the system to understand the relationship between the eye movements and the visual content. Infrared light is often used to illuminate the eyes. This light is not visible to the human eye but is detected by the eye tracking system. The cornea reflects this light, and the reflections are captured by the system. The eye tracking system identifies key features of the eyes, particularly the pupil and corneal reflection (the reflection of the infrared light on the cornea). The relative positions of these features provide information about the direction and angle of the gaze. Using the information gathered from both eyes, the eye tracking software calculates the point where the user is looking, known as the gaze point. This information is often presented as x-y coordinates on the visual stimulus. The recorded data is then analyzed to extract meaningful insights. Researchers can examine metrics such as fixations (periods of stable gaze), saccades (rapid eye movements between

fixations), and dwell time (how long the gaze lingers on a particular point). Results are often visualized through heatmaps, gaze plots, or gaze paths, providing a graphical representation of where users focused their attention and the sequence of their eye movements (Figure 2.9).

Figure 2.9 Eye tracking study result formats



(b) Gaze patterns



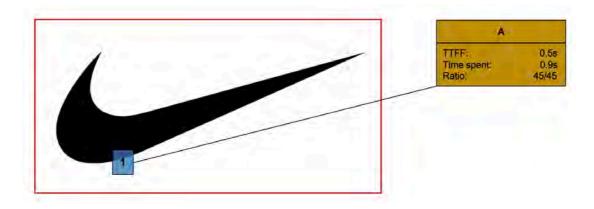
Source. Tullis and Albert (2013)

Source. Tobii (2023).

Eye tracking reveals which specific areas or elements within a visual stimulus attract the most attention. Researchers can define regions of interest and assess the frequency and duration of fixations on these areas, helping to identify focal points within a scene. Fixations, or periods of stable gaze, provide insights into the duration of attention on specific elements. Longer fixations typically indicate increased cognitive processing or interest, while rapid saccades (eye movements between fixations) suggest quick scanning. Dwell time measures how long the gaze lingers on a particular area. High dwell time indicates sustained attention and potential engagement with specific content or features. In usability studies, eye tracking helps evaluate the

effectiveness of user interfaces by identifying areas of confusion or difficulty (Figure 2.10).

Figure 2.10 Eye fixation illustration of Nike logo



Source. Author

Eye tracking informs design improvements to enhance user experience and navigation. It evaluates the unintentional distractions which can hijack the viewer's neural circuitry, diverting attention away from major branding elements. The neurocognitive repercussions follow due to which essential components like logos, slogans, and product packaging may be visually marginalized, impeding the encoding of these brand elements into long-term memory. Are textual elements being actively processed by the neural machinery? Can the narrative plot sustain attention? Are logos subjected to conscious or subconscious scrutiny? The neuroscientific precision offered by eye tracking research delivers these answers along with neurophysiological signatures of attention, engagement, and cognitive processing.

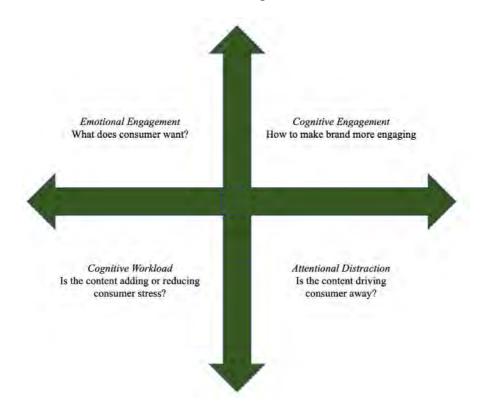
#### 2.3.3 Electroencephalography (EEG)

Electroencephalography (EEG) is a which maps the the electrical activity of the brain indicating patterns of neural communication. It involves placing electrodes on the scalp to detect and record the collective electrical impulses generated by neurons. EEG provides a real-time glimpse into the synchronized activity of neural networks, capturing the oscillatory rhythms and patterns that underlie cognitive processes. The recorded brainwave patterns, characterized by frequencies such as delta, theta, alpha, beta, and gamma, illuminate the dynamic nature of cognitive processing. Delta and theta waves, for instance, are associated with deep sleep and meditative states, while

alpha and beta waves are linked to relaxed wakefulness and focused attention, respectively. Neuroscientists leverage EEG to explore cognitive phenomena such as attention, memory, and emotional processing. By analyzing event-related potentials (ERPs), neuroscientists can pinpoint the precise moments in time when the brain responds to specific stimuli. This temporal precision enables the deconstruction of cognitive processes, providing a nuanced understanding of how the brain reacts to sensory input and makes decisions.

EEG measurements, suggests that emotions are processed asymmetrically in the human brain, particularly in the frontal cortex. Frontal alpha asymmetry, as a sensitive indicator, demonstrates that tenderness is linked to greater left hemispheric activation, indicative of positive valence and approach motivation. Conversely, anger is associated with higher alpha power in the right hemisphere, suggesting negative valence and withdrawal motivation. EEG may be used to evaluate consumer responses to marketing stimuli. For instance, analyzing alpha asymmetry may reveal the emotional valence associated with a brand or advertisement. Increased left-sided alpha activity is linked to positive emotions, while greater right-sided activity may be linked with negative emotions (Poole and Gable, 2014). Marketers could dynamically adjust advertising content based on measured emotional responses, creating a personalized and resonant consumer experience. Positive emotions associated with left hemispheric activation, such as tenderness, can be strategically integrated into advertising to create a positive association with a brand or product. Real-time measurement of FAA during consumer engagement with advertisements enables marketers to optimize content for emotional impact, enhancing consumer engagement and brand perception (Harmon-Jones and Gable, 2018). The findings suggest implications for product positioning and branding, as aligning products with emotions associated with specific hemispheric activation patterns can influence consumer perceptions. The cross-cultural relevance of these findings is crucial for global marketing strategies. Recognizing that emotional responses may vary across cultures; marketers can adapt their approaches to be more culturally sensitive and effective. Figure 2.11 provides the EEG matrix that may be used for neuro-advertising.

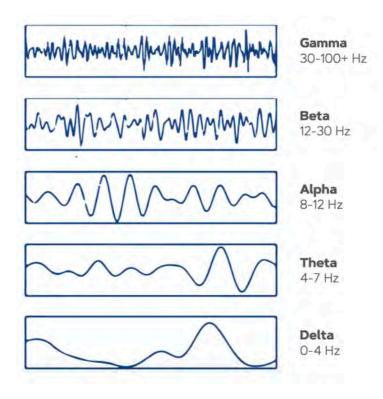
Figure 2.11 EEG matrix for neuro-advertising



Emotional Engagement, as evaluated through left hemispheric activation associated with positive affective states, offers a neuroscientific view into consumer desires. By mapping neural responses indicative of joy, happiness, and excitement, it indicates the nuanced emotional substrates that resonate with consumers, elucidating their preferences and aspirations in the context of advertising content. Cognitive Engagement, examined through a holistic assessment of both hemispheres, serves as a neurocognitive gauge of viewer interest and active processing. It explains how advertising materials captivate attention and stimulate cognitive resources, providing critical insights into crafting more engaging brand narratives and optimizing the cognitive appeal of marketing messages. The assessment of Cognitive Workload, encompassing mental effort and resource allocation, introduces a dimension of neural stress modulation. By scrutinizing the demands placed on cognitive faculties during exposure to advertising, it explains whether the content strikes an optimal balance between engagement and cognitive strain. This exploration informs strategies to refine content complexity, ensuring it is intellectually stimulating without inducing undue stress. Attentional Distraction scrutiny examines both hemispheres to uncover potential

diversions that may compromise the saliency of advertising messages. The neuroscientific lens on attentional dynamics unveils factors that might draw consumers away from the intended focal point, guiding marketers in refining content to maintain viewer attention and enhance overall message efficacy. Understanding EEG has a metaphorical similarity to understanding music. EEG may be imagined as a musical score, where each electrode on the scalp is like a musical note. These electrodes pick up the electrical signals produced by the brain, much like musical notes emanating from instruments. The resulting brainwave patterns, akin to a musical composition, convey the dynamic activity of the brain. EEG interpreters distinct brainwave frequencies. Delta waves are like the deep tones of a bass, associated with deep sleep; theta waves, reminiscent of a soft flute, are linked to relaxation and creativity; alpha waves, akin to a calming piano, indicate a relaxed but alert state; beta waves, resembling a lively percussion section, signify heightened mental activity; and gamma waves, like the swift and intricate notes of a violin, are associated with intense cognitive processing (Figure 2.12).

Figure 2.12 EEG interpretation of consumer brain reflection



*Source*. Tim (2019)

Much like a conductor shapes the emotional contour of a musical piece, EEG allows us to evaluate emotional states. Positive emotions may resonate in a particular hemisphere, creating an EEG melody that mirrors the emotional tone of the brain.

### 2.3.4 Implicit Association Testing

Implicit Association Testing (IAT) is a psychological tool designed to measure the strength of associations between mental representations of objects or concepts in our memory. It assesses the strength of an individual's automatic or implicit associations between different pairs of concepts, such as positive/negative, pleasant/unpleasant, or specific social groups. The test involves pairing two concepts at a time (Concept pairing). Participants are then asked to rapidly categorize stimuli that represent these concepts. This categorization is typically done by pressing a key on a keyboard. The speed and accuracy of the categorization are measured. The underlying assumption is that if a person associates two concepts strongly, they will be quicker to categorize them when they are paired together and slower when they are paired with concepts they don't strongly associate with (Response time analysis). The scoring is based on the differences in response times for different pairs of concepts. The larger the difference in response times, the stronger the association is presumed to be.

IAT is used to explore implicit biases or attitudes that individuals may not be consciously aware of or may be hesitant to admit. It can be employed to understand consumers' implicit associations with brands, products, or advertising messages. For example, a study might explore the implicit associations between a celebrity like Virat Kohli and concepts such as "trustworthy", "likable", or "exciting". If an IAT reveals that participants consistently associate a celebrity with positive attributes, it suggests that the celebrity is likely to have a positive impact on the brand they endorse. If there are negative implicit associations, it might indicate potential risks or challenges associated with the endorsement. It is essential to recognize that IAT results are not static and can be influenced by various factors, including evolving public perceptions, changes in a celebrity's public image, or shifts in societal attitudes. Implicit associations do not necessarily translate directly into behavior, and other factors such as the context

of the endorsement, the target audience, and the overall marketing strategy should be considered.

# 2.3.5 Facial coding

Facial coding in neuromarketing involves the analysis of facial expressions to gain insights into consumers' emotional responses to stimuli such as advertisements, products, or brand messaging. It suggests that facial expressions are universal indicators of emotions and can provide valuable data about a person's emotional engagement and reactions. Facial coding often utilizes advanced technologies such as expression recognition software, which can analyze and interpret facial expressions in real-time. This software can identify key facial movements, such as muscle contractions and changes in expression intensity. The software maps facial expressions to specific emotions, such as happiness, surprise, anger, disgust, fear, and sadness. Each emotion is associated with distinct facial muscle movements and patterns. Participants in a neuromarketing study are typically recorded while they interact with stimuli like advertisements. The facial coding software then analyzes their facial expressions in real-time, capturing emotional reactions without relying on self-reporting, which can be influenced by conscious biases or social desirability.

The data collected from facial coding is interpreted to understand which specific moments in an advertisement or other stimuli elicit strong emotional responses. This information helps marketers identify the most emotionally resonant elements and optimize their content accordingly. Facial coding not only detects the presence of emotions but also gauges their intensity, providing a measure of emotional valence. This helps distinguish between positive and negative emotional responses, allowing marketers to assess the overall emotional impact of their content. Media company Kantar, is utilizing facial coding to measure passive and active attention. This metric offers a direct assessment of the viewer's passive, involuntary engagement with the content and magnify subconscious emotional responses like joy, surprise or anger (Figure 2.13).

the de de de de de de la die F F . . 90% 80% 60% 50% 30% 20% 10% 0% 2 6 8 10 Playback Passive Attention Active Attention

Figure 2.13 Facial coding metrics used by Kantar

Source. Bureau (2023)

Facial coding offers a non-intrusive way to measure emotional responses without relying on participants to articulate their feelings. This is particularly advantageous when studying implicit or subconscious reactions. The real-time nature of facial coding allows for immediate feedback, enabling marketers to pinpoint specific elements in their content that generate emotional responses. This can inform on-the-fly adjustments during the creative process. Facial expressions are largely universal, making facial coding a tool that can be applied across diverse cultural contexts. This cross-cultural applicability enhances the generalizability of neuromarketing findings. However, predictive accuracy of facial coding, as a method for gauging emotional responses to ads, is relatively low. This limitation arises from a notable asymmetry in the expression of positive and negative emotions. Viewers tend to exhibit less clearly positive facial responses to ads, while negative responses, on the contrary, are more prevalent. The observed dominance of negative emotions in facial expressions during ad viewing creates a skew in the effectiveness of facial coding. It is more adept at capturing and identifying dislike rather than like. This phenomenon aligns with the broader understanding in affective neuroscience, emphasizing that negative emotions often elicit more pronounced and easily detectable physiological and facial responses

compared to positive emotions. This inherent bias towards detecting negative emotions is a crucial consideration for advertisers and neuroscientists leveraging facial coding technology. While the method excels in pinpointing elements of content that may lead to viewer dissatisfaction or disapproval, it may not be as sensitive in identifying the subtleties of positive emotional responses. Simultaneously, complementary methods, such as self-reporting or other neuroscientific measures, may be necessary to obtain a more comprehensive understanding of positive emotional engagement with advertisements. The information generated jointly from facial coding, EEG or eye-tracking may then be seamlessly integrated with facial expressions, allowing for a multi-dimensional assessment of attention.

# 2.3.6 Galvanic skin response (GSR)

Galvanic Skin Response (GSR), also known as Electrodermal Activity (EDA) or Skin Conductance, is a physiological measure that assesses the electrical conductance of the skin in response to sweat gland activity. It is often used as an indicator of emotional arousal and physiological arousal, providing insights into an individual's stress levels or emotional engagement. The skin contains sweat glands that are regulated by the sympathetic nervous system. When an individual experiences emotional arousal or stress, the sympathetic nervous system becomes active, leading to an increase in sweat gland activity. Sweat is conductive, meaning it facilitates the flow of electricity. As the level of sweat on the skin changes, so does the electrical conductance. GSR is typically measured by placing electrodes on the skin, usually on the fingers or palm, where there is a higher density of sweat glands. The electrodes measure the electrical conductance between them, and this data is then amplified and recorded for analysis. Changes in skin conductance are reflected in the GSR signal. An increase in arousal or stress leads to higher skin conductance, while a decrease indicates a reduction in sympathetic nervous system activity. GSR data is often represented as a series of peaks and valleys, with each peak corresponding to a moment of increased arousal or emotional response. Neuromarketers use GSR to understand consumer reactions to stimuli such as advertisements, product packaging, or brand messaging. It provides real-time, subconscious insights into emotional engagement and arousal. GSR is employed in usability studies to assess user experiences with products, websites, or

interfaces. Peaks in GSR may indicate moments of frustration or delight. GSR is sensitive to various factors, including temperature, humidity, and individual differences, which can affect the accuracy and comparability of measurements. The interpretation of GSR data often requires context-specific knowledge and may not always provide a straightforward indication of specific emotions. It measures arousal but does not distinguish between positive and negative emotions, requiring complementary measures for a more comprehensive emotional assessment.

### 2.4 Neuroscience components of consumer preferences

Consumer neuroscience examines the neural mechanics that define consumer behavior. it aims to assess the neural mechanisms governing how individuals think, feel, and act in the context of purchasing decisions. McClure et al. (2004) provided neural evidence that dorsolateral prefrontal cortex and hippocampus (areas of consumer brain which perform selective attention and memory functions) undergo neural activity when exposed to advertisements (Figure 2.14). Erk et al. (2002) suggested celebrity like glamour in advertisements induce neural activity in ventromedial prefrontal cortext (vmPFC, engaged in emotion regulation) and nucleus accumbens (NAcc, engaged in converting motivation into action) regions.

dorsolateral PFC (dIPFC) (e.g. predicted value, anterior Cingulate ambiguity, Cortex (ACC) working memory, (e.g. response remembered value) resolution, choice anxiety, conflict) lateral OFC (anterior Insula (IOFC) Insula) ventral Striatum & NAcc (e.g. disgust, pain, ventromedial PFC (e.g. consumption/ (e.g. learning, preference/ negative emotions, experienced medial OFC liking, predicted value, arousal) value) (e.g.valuation, predicted motivational value) and experienced value, WTP)

Figure 2.14 Brain component approach to measure consumer preferences

Source. Adapted from Karmakar and Plassmann (2019)

Consumer neuroscience tries to identify whether particular areas (Z) in the brain are triggered post coming into contact with celebrity endorsements as stimulus (X). Such studies are in demand by the industry to better understand the impact of their celebrity endorsement campaigns and to know what exactly motivates a purchase by a consumer. For instance, Knutson et al. (2007) explained that different parts of our brain play specific roles in how we decide what to buy and how much we are willing to pay for it. They discovered that a specific part of the brain (NAcc), becomes active when we really like a product. Medial prefrontal cortex (mPFC), becomes active when we think about the value of the product in relation to its price. The insula, gets activated when we have negative feelings about the price, especially when we do not like the product. These studies have tried to analyze the consumer neuroscience through a component by component analysis, i.e. whether a specific part of the brain shows activity after watching celebrity endorsement or not. However, Balconi and Sansone (2021) indicated the risk of "reverse inference" involved in such component-by-component approach to neuroscience.

Reverse inference involves interpreting brain activity in terms of a specific psychological state, assuming a one-to-one relationship between brain regions and mental processes. They cautioned that breaking down the analysis into isolated components may oversimplify the complex and dynamic nature of brain functioning. Further one-to-one mapping of celebrity endorsement induced causation effect may skip certain other components of neural functioning which may be contributing to consumer decision making (Misra and Beatty, 1990). Accordingly, there is a need for a more holistic and nuanced approach to interpreting neuroscientific findings while studying consumer preferences. By steering away from an isolationist view, this study adopts a comprehensive framework of studying brain effects through the intricate working of cognitive, affective and conative neural procedures. This framework seeks to capture the synergistic effects of different brain regions and their collective contribution to consumer preferences. The following sections explain these procedures activated in response to celebrity endorsements in detail.

# 2.4.1 Cognitive attributes of consumer neuroscience

At the cognitive forefront of consumer neuroscience lies the exploration of mental processes such as perception, attention, memory, and decision-making (Knoll and Matthes, 2017). Cognitive attributes encompass the mechanisms by which individuals acquire, process, and store information related to products, brands, and various marketing stimuli. Cognitive attributes relates to "the level of knowledge and awareness a consumer has about the endorsed product" (Lavidge and Steiner 1961) These attributes signify the mechanisms through which the brain perceives the influx of information, shaping how consumers perceive and interact with the external stimuli. The neural understanding associated with attentional focus, the retrieval of information from memory, and evaluative processes actively contribute to molding cognitive responses.

#### **2.4.1.1 Attention**

Attentional focus guides the neural pathways to selectively engage with specific aspects of their environment. While consumers are exposed to a vast amount of information, but their attention is selective. They tend to focus on stimuli that are relevant to their needs, interests, or goals while ignoring or filtering out irrelevant information (selective attention). Marketers aim to design attention-grabbing elements to capture the audience's focus amid competing stimuli. The brain's attentional processes involve various stages, including orienting, selecting, and sustaining attention. Marketers study these processes to optimize the presentation of their messages. For example, understanding how certain colors, visuals, or headlines can attract and maintain attention aids in designing effective marketing materials (Erfgen et al., 2015). Consumer attention spans can vary, and in the digital age, there is often a challenge to capture and retain attention in a fast-paced and information-rich environment. Marketers must tailor their strategies to align with the typical attention span of their target audience, considering factors such as platform, content type, and context. Modern consumers often engage in multitasking, dividing their attention among various stimuli simultaneously (Weinlich and Semerádová, 2022). Marketers need to account for this behavior and design campaigns that can effectively compete

for attention in a multitasking environment. Emotional content tends to capture and retain attention more effectively than neutral information. Marketers leverage emotions to create compelling and memorable experiences that resonate with consumers, fostering a deeper connection and prolonged attention. Novelty and surprise are tools to grab attention (Ismaila et al., 2020). Consumers are more likely to notice and engage with stimuli that stand out or deviate from the expected. Marketers incorporate elements of novelty and surprise to make their messages memorable and shareable. Tailoring content to individual preferences increases the likelihood of capturing attention. Personalized marketing messages, based on consumer behavior and preferences, enhance relevance and engagement. Design elements such as color, contrast, and layout contribute to creating a visual hierarchy that guides the viewer's attention. Marketers strategically use visual hierarchy to emphasize key information and guide the consumer's gaze.

## **2.4.1.2** Memory

Consumer memory plays role in shaping purchasing decisions and brand perceptions. It indicates the mental processes through which individuals encode, store, and retrieve information related to products, brands, and marketing stimuli. Understanding how consumer memory functions is essential for marketers to create lasting impressions, build brand loyalty, and influence future buying behavior. The process of encoding involves converting sensory information (such as visuals, sounds, or text) into a form that the brain can store (Elberse and Verleun, 2012). Marketers aim to create memorable and distinctive experiences that facilitate the encoding of their brand and product information into consumers' memory. Short-term memory (STM) holds a limited amount of information for a brief duration. Marketers focus on creating immediate and impactful messages to ensure temporary retention. Long-term memory (LTM) stores information for an extended period, and marketers strive to move brandrelated information from short-term to long-term memory for sustained recall. Semantic memory stores general knowledge about the world, including facts and concepts related to products and brands (Hinojosa et al., 2017). Establishing a positive association in semantic memory contributes to a favorable brand image. Episodic memory involves

the recollection of specific events and experiences. Marketers leverage storytelling and memorable events to create associations that consumers can recall when thinking about a brand (Erdogan et al., 2001). Brand recall measures the ability of consumers to retrieve a brand name from memory when prompted. Effective marketing strategies, including consistent branding and memorable advertising, enhance brand recall. Recognition occurs when consumers identify a brand or product among several options. It is easier than recall and is often used in marketing through visual cues, logos, and slogans (Jackson and Hogg, 2010).

Repeated exposure to brand messages enhances memory recall. Consistent branding across various touchpoints reinforces the information stored in consumer memory. Memories are interconnected in networks, and one memory can trigger the recall of related memories (Biswas et al., 2006). Marketers create positive associations and linkages to ensure that thinking about one aspect of the brand brings others to mind. (Heath, 2012). Emotional experiences are often better remembered. Marketers tap into emotions to create memorable advertising campaigns that leave a lasting impression on consumers. Over time, memories may fade or be displaced by new information. Marketers use strategies to mitigate forgetting, such as maintaining brand visibility and engagement (Liu et al., 2023). Evaluative processes, encompassing judgment and decision-making, represent the cognitive summit where preferences are formed and choices are crystallized. The neural mechanisms underlying these evaluative processes offer a window into the factors that shape consumers' perceptions of products and brands (Um and Jang, 2020). Understanding the cognitive intricacies involved in decision-making empowers marketers to fine-tune their strategies, ensuring alignment with the brain's predispositions and nudging consumers toward favorable choices.

# 2.4.1.3 Awareness

Consumer awareness refers to the level of knowledge and understanding that individuals have about products, services, brands, and market conditions (Kalra et al., 2023). Consumer awareness involves having information about the products available

in the market. This includes understanding product features, specifications, uses, and benefits. Knowledgeable consumers are better equipped to make informed choices (Rifon et al., 2023). Consumers need to be aware of different brands within a product category. Brand awareness is the extent to which consumers recognize and recall a particular brand. Strong brand awareness often leads to a sense of familiarity and trust among consumers (Tseng and Wang, 2023). Being aware of market conditions, such as prices, promotions, and trends, allows consumers to make price-conscious decisions and adapt their purchasing behavior based on the current market environment. Awareness of consumer rights empowers individuals to make choices confidently and protects them from unfair practices. Understanding rights related to product quality, safety, and fair pricing contributes to a well-informed and vigilant consumer base (Kumar et al., 2023). Consumer awareness has expanded to include considerations beyond individual needs. Awareness of social and environmental impacts of products and brands influences consumer choices, with an increasing focus on sustainability and ethical practices (Lafontaine et al., 2020). Consumer awareness is influenced by exposure to advertising, word-of-mouth, reviews, and information from various sources. Marketers play a crucial role in creating awareness through effective communication strategies. Awareness of the health and safety aspects of products is vital (R, 2020). Consumers should have access to information about potential risks, ingredients, and usage guidelines to make choices aligned with their well-being. With the rise of digital platforms, consumers need to be aware of online shopping practices, data privacy concerns, and the authenticity of information available online. Digital literacy contributes to making safe and secure online transactions. Consumer awareness can be enhanced through educational initiatives. These initiatives may include campaigns, workshops, and materials aimed at providing consumers with the knowledge and skills to make informed decisions. Awareness of existing regulations and policies that protect consumers' interests is essential. Consumers who are aware of their rights and legal protections are more likely to seek fair treatment and challenge any unfair practices.

# 2.4.1.4 Perception

Consumer perception can be understood as the "way individuals interpret and make sense of information gathered from their environment", particularly concerning products, brands, or marketing stimuli (Biswas et al., 2006). It involves the mental processes through which people organize, interpret, and give meaning to sensory inputs, shaping their understanding and evaluation of the world around them. Here are key aspects related to consumer perception. Perception begins with the reception of sensory inputs, including visual, auditory, tactile, olfactory, and gustatory stimuli. Consumers process this information through their senses, and the way stimuli are perceived influences subsequent cognitive and emotional responses. Consumers tend to selectively focus on specific aspects of information based on their interests, needs, and expectations. This selective attention influences what individuals notice and remember, impacting their perception of products and brands. Interpretation involves assigning meaning to sensory inputs. Consumers interpret information based on their prior experiences, cultural background, beliefs, and personal values. Marketers strive to create messages and experiences that align with positive interpretations and associations. Cognitive processes, including memory, learning, and decision-making, play a significant role in shaping consumer perception. For example, positive past experiences with a brand can contribute to a favorable perception, while negative experiences may lead to a less favorable view (Lee et al., 2018). Consumers may experience cognitive dissonance when there is a perceived inconsistency between their beliefs or values and new information. Marketers aim to manage cognitive dissonance by providing information that aligns with consumers' existing attitudes and beliefs. The overall perception of a brand, known as brand image, is a crucial aspect of consumer perception. It encompasses the emotions, associations, and attributes that consumers attribute to a brand based on their experiences and interactions (Dhotre and Bhola, 2020).

Marketing strategies, including branding, advertising, and product packaging, play a significant role in shaping consumer perception. Elements such as color, design, and messaging are carefully crafted to evoke specific perceptions and emotions.

Consumer perception is often influenced by social factors, including peer opinions, cultural norms, and societal trends. Social media and word-of-mouth play a substantial role in shaping how products and brands are perceived in the eyes of consumers (Anuradha et al., 2023). Emotions significantly impact consumer perception. Positive emotions associated with a product or brand can lead to increased preference and loyalty, while negative emotions may result in avoidance or negative reviews. Consumers evaluate the perceived value of a product or service based on a combination of quality, price, and brand reputation. Perceived value influences purchase decisions and overall satisfaction (Johansson and Bozan, 2017).

#### 2.4.1.5 Recall

Consumer recall is a cognitive process that involves remembering and retrieving information about products, brands, or marketing stimuli from one's memory. It is a crucial aspect of consumer behavior as it directly influences purchasing decisions and brand perception. Here are key points related to consumer recall: Consumer recall begins with the encoding of information into memory. When individuals encounter products, advertisements, or brand messages, their brains encode relevant details into short-term and, potentially, long-term memory. Effective encoding ensures that information is stored for future retrieval. Consumers are more likely to recall brands that they are aware of. Building brand awareness through consistent marketing efforts, brand visibility, and positive associations contributes to higher recall when consumers encounter related stimuli (Min et al., 2019). The effectiveness of advertising campaigns is often measured by consumer recall. If consumers can remember and recognize elements of an advertisement, it indicates that the message has been successfully stored in their memory. Memorable and distinctive advertisements tend to have better recall (Kingsnorth, 2022). Recall is often triggered by cues or stimuli associated with the initially encoded information. For instance, a familiar jingle, logo, or packaging can serve as a cue, prompting consumers to recall the brand or product associated with those elements. Consumers are more likely to recall specific product attributes or features that are distinctive or hold personal relevance. Highlighting unique selling points and creating memorable product experiences contribute to better recall.

Emotionally charged experiences or advertisements tend to enhance recall. Positive or negative emotions associated with a brand or product can create a lasting impression in memory, influencing future choices and preferences (Keller and Swaminathan, 2020). Repetition is a common strategy used to enhance recall. Regular exposure to brand messages or product information increases the likelihood of encoding and, subsequently, recalling the information when needed (Silva et al., 2023). The context in which information is encountered can impact recall. For example, if a product is seen in a specific context or setting, consumers may recall it more easily when they encounter a similar context (Meng et al., 2021). Recommendations from friends, family, or peers can influence recall. Positive word-of-mouth creates a mental association that can enhance the likelihood of consumers remembering and considering a particular brand or product (Keller, 1993). Clear and concise communication contributes to better recall. Messages that are easy to understand and remember, with a focus on key benefits or features, are more likely to be recalled by consumers (Schartel and Nisbett, 2023).

H1a: "Celebrity endorsed advertisements have a positive effect on cognitive attributes as measured through consumer attention, consumer awareness and consumer perception, consumer memory and consumer recall than non-celebrity endorsed advertisements"

### 2.4.2 Affective attributes of consumer neuroscience

Affective attributes in consumer neuroscience unravel the emotional dimensions underlying consumer responses (Dermirkan and Li, 2022). Emotions play a pivotal role in shaping preferences, attitudes, and ultimately, purchasing decisions. This facet of consumer neuroscience investigates how the brain processes and generates emotions in response to marketing stimuli (Carroll & Ahuvia, 2006). Neural correlates associated with emotional valence, arousal, and empathy shed light on the emotional resonance evoked by advertisements, product experiences, or celebrity endorsements (Ismaila et al., 2020). Marketers leverage this understanding to craft emotionally resonant campaigns that forge deep connections with consumers, fostering brand loyalty through positive emotional associations. The components of the brain that are

majorly involved in affective psychological working include Amygdala (left), Amygdala (right), hypothalamus, periaqueductal gray/thalamus regions, and amygdala/ventral striatum/ventral globus pallidus/thalamus regions (Kober et al., 2008).

#### **2.4.2.1** Emotions

Consumer emotions are the range of feelings and affective responses that individuals experience in the context of their interactions with products, brands, and marketing stimuli. Emotions play a significant role in shaping consumer perceptions, preferences, and decision-making. Understanding and effectively managing consumer emotions is crucial for marketers to create meaningful connections with their target audience. Emotions heavily influence consumer decision-making. Positive emotions, such as joy or excitement, can enhance product preferences and increase the likelihood of purchase, while negative emotions, like frustration or disappointment, may deter consumers from a brand or product (Chung and Cho, 2017). Building an emotional connection between consumers and brands fosters loyalty and long-term relationships. Brands often strive to evoke specific emotions that align with their identity, values, and the desired perception in the minds of consumers. Emotional appeals in marketing messages can enhance engagement and memorability. Content that triggers emotions is more likely to be shared and remembered, contributing to a brand's visibility and wordof-mouth marketing (R, 2020). Techniques such as sentiment analysis and emotional analytics are employed to identify and measure consumer emotions. These tools help marketers gauge the emotional impact of their campaigns and tailor future strategies accordingly. Emotions can be contagious, and consumer interactions with a brand or product can influence the emotions of others. Positive experiences shared on social media, for example, can contribute to a brand's positive image, while negative reviews may have the opposite effect. Consumer emotions are influenced by cultural factors and the context in which interactions occur. Marketers need to be aware of cultural nuances and adapt emotional appeals to resonate with diverse audiences. Surprise and delight strategies involve exceeding consumer expectations, evoking positive emotions, and creating memorable experiences. Brands that go beyond what is expected can

evoke joy, gratitude, and other positive emotions. The overall customer experience significantly impacts consumer emotions. Positive experiences at various touchpoints, from browsing a website to interacting with customer service, contribute to positive emotions and customer satisfaction. Consumer neuroscience employs techniques like neuroimaging to study the neural correlates of emotional responses. Understanding the brain's role in processing emotions provides deeper insights into how marketing stimuli elicit specific emotional reactions.

#### **2.4.2.2** Attitude

Consumer attitude concerns with the overall evaluation or emotional disposition that an individual holds toward a particular product, service, brand, or overall shopping experience (Min et al., 2019). Attitudes are formed through a combination of beliefs, feelings, and behavioral intentions, and they significantly influence consumer behavior. Attitudes are often rooted in consumers' beliefs about a product or brand. These beliefs can be based on personal experiences, information from various sources, or cultural influences. Positive beliefs generally lead to favorable attitudes, while negative beliefs result in unfavorable attitudes (Liu et al., 2023). Emotional responses play a crucial role in shaping attitudes. Consumers may develop positive attitudes toward a brand if it evokes feelings of joy, trust, or excitement. Conversely, negative emotions, such as frustration or disappointment, can lead to unfavorable attitudes. Consumer attitudes are closely linked to behavioral intentions, reflecting a person's likelihood of taking a particular action. For example, a positive attitude toward a product may lead to the intention to purchase it, while a negative attitude may deter the consumer from buying. In cases where a consumer's beliefs and behaviors are in conflict, cognitive dissonance may arise (Paul and Bhakar, 2018). This psychological discomfort motivates individuals to align their attitudes with their actions, emphasizing the role of consistency in shaping consumer attitudes.

Attitudes can be formed through direct experiences, social influence, and exposure to marketing messages. Marketers often seek to influence or change consumer

attitudes through advertising, promotions, and other communication strategies. Attitudes are multi-dimensional, comprising cognitive (beliefs), affective (emotional), and behavioral components. Understanding these dimensions helps marketers design strategies that resonate with consumers on various levels. The strength of an attitude reflects its stability and resistance to change. Strong attitudes are more likely to persist over time and influence behavior. Marketers may focus on building strong positive attitudes to enhance brand loyalty. The ease with which an attitude comes to mind influences its impact on behavior (Pradhan et al., 2016). Easily accessible attitudes are more likely to guide consumer decisions. Marketers aim to make positive brand associations readily accessible in the minds of consumers. While attitudes are strong predictors of behavior, inconsistencies can exist. External factors, such as situational influences, may impact the alignment between attitudes and actual behavior (Bauer et al., 2022). Attitudes can be shaped by social factors, including family, friends, and societal norms. Social influence plays a significant role in the formation and reinforcement of consumer attitudes.

#### 2.4.2.3 Love for the brand

Consumer love involves a deep emotional connection and affection that consumers feel toward a particular brand. Building and nurturing this love is a strategic goal for marketers, as it can lead to long-term customer relationships, positive word-of-mouth, and brand advocacy (Wang et al., 2017). Brands that evoke positive emotions and resonate with consumers on an emotional level are more likely to be loved. Emotional connections can be built through storytelling, relatable messaging, and campaigns that touch on personal experiences. A brand with a clear and consistent identity fosters trust and familiarity. Consumers are more likely to love a brand that remains true to its values, maintains consistency across various touchpoints, and delivers on its promises (Liu and Liu, 2019). A brand with a clear and consistent identity fosters trust and familiarity. Consumers are more likely to love a brand that remains true to its values, maintains consistency across various touchpoints, and delivers on its promises. Authenticity is crucial in cultivating love for a brand.

Consumers appreciate brands that are genuine, transparent, and demonstrate a real commitment to their values (Zhu et al., 2019). Authenticity builds trust and fosters a deeper connection. The fundamental quality of products or services is a cornerstone of brand love. Consistently delivering high-quality offerings contributes to consumer satisfaction and reinforces positive sentiments toward the brand. Brands that foster a sense of community among their consumers and actively engage with their audience create a loyal following. Social media platforms and other interactive channels provide opportunities for brands to connect with their audience on a personal level. Consumers are drawn to brands that share their values and beliefs (Tseng and Wang, 2023). When a brand aligns with the principles that consumers hold dear, it establishes a connection that goes beyond transactional relationships (Yan et al., 2023). Going the extra mile to surprise and delight consumers can create memorable experiences that contribute to brand love. This could involve unexpected perks, personalized gestures, or limitededition offerings that show appreciation for customers. Compelling brand narratives and storytelling can create an emotional bond with consumers. Brands that tell stories about their journey, mission, or the impact they make in the world can evoke a sense of connection and love. Brands that demonstrate adaptability to changing consumer needs and embrace innovation are more likely to stay relevant and maintain love over time. Continuous improvement and staying ahead of trends show consumers that the brand cares about their evolving preferences.

# 2.4.2.4 Sentiments

Consumer sentiments implies to the overall feelings, attitudes, and emotions that individuals associate with a particular product, brand, or the market in general. These sentiments can influence consumer behavior, impacting purchasing decisions, brand loyalty, and overall engagement with products or services. Consumer sentiments are often closely tied to emotional responses. Positive emotions, such as joy, satisfaction, or trust, can enhance favorable sentiments, while negative emotions, such as frustration or disappointment, can lead to unfavorable sentiments (Carroll & Ahuvia, 2006). The way consumers perceive a brand contributes significantly to their sentiments. Factors such as brand reputation, values, and past experiences influence

whether consumers have positive or negative sentiments towards a particular brand. Consumers' experiences with a product play a vital role in shaping their sentiments. Satisfactory experiences lead to positive sentiments, while dissatisfaction can result in negative sentiments (Grier and Bryant, 2005). Product quality, functionality, and meeting customer expectations contribute to overall satisfaction. Consumer sentiments are often shared through word of mouth, both offline and online. Positive sentiments can lead to recommendations and positive reviews, while negative sentiments may result in criticism and warnings to others. Social interactions and the influence of peers, family, and social media contribute to consumer sentiments. Positive endorsements from social circles can enhance sentiments, while negative experiences shared by others may influence sentiment negatively. Economic conditions and perceptions of financial well-being can impact consumer sentiments. During economic downturns, consumers may exhibit caution, leading to more conservative spending and potentially negative sentiments about the market (Amakyewaa et al., 2021). Cultural trends and societal shifts influence consumer sentiments. Changes in values, preferences, or societal expectations can shape how consumers feel about certain products or brands. The messages conveyed through marketing and advertising campaigns can influence consumer sentiments (Parsad et al., 2021). Effective marketing that resonates with the target audience's values and aspirations can create positive sentiments. How a brand handles crises or responds to negative events can significantly impact consumer sentiments (Bevan-Dye, 2020). Transparency, accountability, and effective crisis management strategies can mitigate negative sentiments. Consumer sentiments are often expressed and shared on digital platforms, including social media and online reviews. Monitoring and responding to online sentiment can be crucial for brands to manage their reputation.

#### **2.4.2.5 Affection**

Consumer affection implies the emotional connection and positive feelings that individuals have toward a brand, product, or service. It goes beyond mere satisfaction and involves a deeper, more emotional bond between consumers and what they consume. Building consumer affection is a strategic goal for businesses as it can lead

to increased brand loyalty, positive word-of-mouth marketing, and long-term customer relationships. Consumer affection involves an emotional attachment to a brand or product. This emotional connection can be influenced by various factors, including brand values, experiences, and the perceived alignment between the brand and the consumer's personal identity or lifestyle. Trust is a foundational element of consumer affection. When consumers trust a brand, they are more likely to develop positive feelings toward it. Trust can be built through consistent product quality, transparent communication, and ethical business practices. Positive experiences with a brand, whether through exceptional customer service, enjoyable interactions, or high-quality products, contribute to consumer affection. Brands that consistently create positive experiences are more likely to be cherished by consumers. Consumers tend to feel affectionate toward brands that provide perceived value. This value can be a combination of functional benefits (meeting practical needs) and emotional benefits (enhancing well-being, happiness, or self-esteem). Brands with distinctive and relatable personalities often evoke consumer affection. A brand's personality is conveyed through its messaging, visual identity, and overall brand image. Consumers may feel a connection with brands that share values or characteristics they appreciate. Brands that foster a sense of community or belonging among their customers can cultivate consumer affection. This can be achieved through social media engagement, exclusive events, or loyalty programs that make consumers feel part of a larger, meaningful community. Compelling storytelling can evoke emotions and contribute to consumer affection. Brands that tell stories about their origin, mission, or the impact they make in the world can create a narrative that resonates with consumers on an emotional level. Consistency in branding, messaging, and product/service delivery is crucial for building consumer affection. Predictable and reliable experiences contribute to a sense of security and trust, reinforcing positive feelings toward the brand. Consistency in branding, messaging, and product/service delivery is crucial for building consumer affection. Predictable and reliable experiences contribute to a sense of security and trust, reinforcing positive feelings toward the brand. When consumers feel affectionate toward a brand, they are more likely to share their positive experiences with others. Positive word-of-mouth marketing can amplify the brand's reputation and attract new customers.

H1b: "Celebrity endorsed advertisements have a positive effect on affective attributes as measured through consumer attitude towards ad, consumer attitude towards object, brand love, celebrity love and consumer emotions than non-celebrity endorsed advertisements."

#### 2.4.3 Conative attributes of consumer neuroscience

The conative dimension explores the behavioral aspects of consumer decision-making, focusing on intentions, preferences, and actual choices. It delves into the neural mechanisms that drive individuals to act on their cognitive and affective responses. Conative attributes encompass the motivational forces propelling consumers toward specific actions, such as making a purchase, sharing information, or engaging with a brand (Weinlich and Semerádová, 2022). By deciphering the neural underpinnings of motivation, consumer neuroscience empowers marketers to design strategies that influence consumer behavior, fostering desired outcomes and shaping the journey from consideration to action (Cornwell et al., 2022). Together, these cognitive, affective, and conative attributes make up the "buy button" in the consumer mind, providing an understanding of the neural dynamics steering individuals along the path of consumer decision-making (Osei-Frimpong et al 2019). The following sections explain these components of neural psychology in detail.

#### 2.4.3.1 Purchase intention

Purchase intention refers to an individual's expressed likelihood or willingness to buy a product or service in the future (Masuda et al., 2022). It represents a key aspect of consumer decision-making and plays a crucial role in forecasting potential sales for businesses. Consumers assess the perceived value of a product or service concerning its price, quality, and features. A positive perception of value increases the likelihood of purchase intention (Gauns et al., 2018). Brand image, reputation, and trustworthiness impact purchase intention. Consumers are more likely to express an intention to buy from brands they perceive positively. Previous experiences with a brand or product

influence purchase intention (Nadube and Gowon, 2020). Satisfied customers are more likely to express an intention to make repeat purchases. Effective marketing campaigns, advertising strategies, and promotional activities can influence consumers and enhance their purchase intention by creating awareness and interest in the product. Recommendations from friends, family, or influencers can significantly influence purchase intention. Positive social reviews and word-of-mouth recommendations often contribute to a favorable intention to buy. Consumers evaluate the perceived risk associated with a purchase, including financial risk, performance risk, and social risk. A lower perceived risk generally increases purchase intention. (Ohanian, 1991). The ease of access and availability of a product or service can impact purchase intention. Convenience and accessibility contribute positively to the likelihood of buying. The consumer's perception of their need or desire for a particular product strongly influences their purchase intention. Products that fulfill a specific need or want are more likely to generate positive purchase intentions. Factors such as age, income, lifestyle, and personality traits influence purchase intention. Understanding the demographic and psychographic profiles of the target audience helps tailor marketing strategies accordingly (Saima and Khan, 2020). The perceived affordability of a product or service is a significant factor in purchase intention (La Ferle and Choi, 2005).

Discounts, promotions, and perceived value for money can positively influence intention to purchase. High switching costs, whether in terms of time, effort, or financial investment, act as a barrier to consumers exploring alternative brands. Purchase loyalty is reinforced when consumers perceive that the benefits of staying outweigh the costs of switching. (Um and Jang, 2020). Positive experiences and satisfaction with a brand contribute not only to individual purchase loyalty but also to word-of-mouth recommendations. Satisfied customers are more likely to advocate for a brand, potentially influencing others and contributing to the brand's overall loyalty base (Meng et al., 2021).

## **2.4.3.2** Loyalty

Consumer loyalty is a measure of a consumer's commitment and attachment to a particular brand, product, or service. A loyal customer is more likely to make repeat purchases of a product or service (Amakyewaa et al., 2021). This consistent buying behavior is a fundamental indicator of loyalty and reflects the customer's satisfaction and trust in the brand. Loyal customers often become brand advocates (Pradhan et al., 2016). Building an emotional connection between the brand and the consumer is a factor in fostering loyalty (Cornwell et al., 2022). Consistency in delivering positive experiences across various touchpoints is important. Whether in product quality, customer service, or brand messaging, maintaining a high standard contributes to building and retaining consumer loyalty (Erdogan et al., 2001). Loyal customers are generally satisfied customers (Dermirkan and Li, 2022). Meeting or exceeding customer expectations through quality products, reliable services, and responsive customer support contributes significantly to loyalty. implementing effective loyalty programs, such as reward points, discounts, or exclusive offers for repeat customers, can incentivize continued patronage and enhance brand loyalty.

Regular and meaningful communication with customers helps to keep the brand in their minds (Tseng and Wang, 2023). Brands that communicate transparently, provide updates, and engage with customers through various channels tend to foster stronger loyalty (Kahle and Homer, 1985). Staying relevant to changing consumer needs and preferences is crucial for maintaining loyalty (Shimul et al., 2022). Brands that innovate, adapt to market trends, and offer new and improved products or services demonstrate a commitment to customer satisfaction (Ghirlanda et al., 2020). Trust is a cornerstone of loyalty. Brands that consistently deliver on promises, maintain transparency, and build a reputation for reliability are more likely to earn and retain the trust of their customers. Building a sense of community around the brand can enhance loyalty (Kapferer, 2008). Encouraging customer engagement through forums, social media, or events fosters a feeling of belonging and strengthens the emotional ties between customers and the brand.

## 2.3.3.3 Engagement

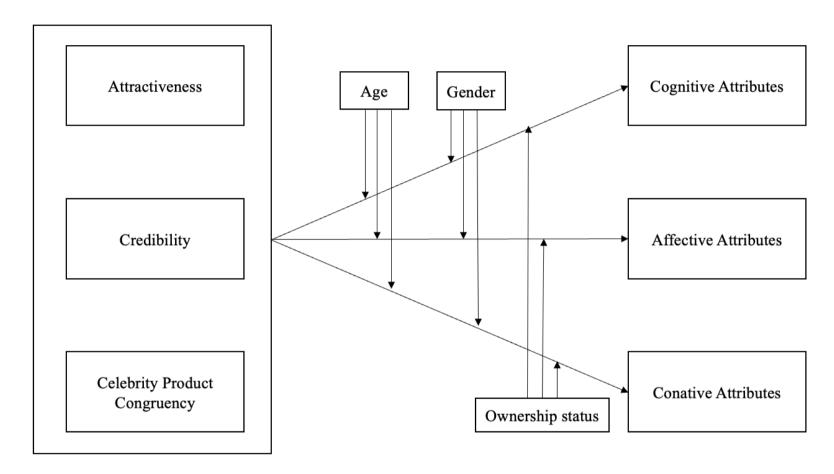
Consumer engagement can be understood as the depth of interaction, involvement, and connection that individuals have with a brand, product, or marketing content. It goes beyond mere attention and involves creating meaningful and sustained interactions that foster a positive relationship between consumers and the brand. Consumer engagement involves active participation rather than passive observation. It can take various forms, including social media interactions, sharing content, participating in surveys, providing feedback, or joining loyalty programs. Successful engagement establishes a two-way communication channel between the brand and the consumer. Brands deliver messages and also listen and respond to consumer feedback, inquiries, and comments fostering a sense of dialogue and mutual understanding. Creating an emotional connection is a powerful driver of engagement. Brands that evoke positive emotions, resonate with consumers' values, or provide memorable experiences are more likely to build lasting and meaningful relationships. Tailoring experiences to individual preferences enhances engagement. Personalized content, recommendations, or offers make consumers feel valued and understood, increasing their willingness to engage with the brand. Engaging content is relevant, valuable, and resonates with the target audience. Whether it is entertaining, informative, or inspiring, content that meets consumers' needs and interests captures and maintains their attention. Establishing a sense of community around a brand or product encourages consumer engagement. Online forums, social media groups, or events that bring likeminded individuals together create opportunities for consumers to connect with the brand and each other. Providing a consistent brand experience across various channels and touchpoints contributes to sustained engagement. Whether online or offline, consumers should encounter a cohesive and recognizable brand identity. Quick and helpful responses to customer inquiries or concerns contribute to positive engagement. Brands that prioritize customer service build trust and loyalty, fostering a positive relationship with consumers (Malik et al., 2023). Encouraging consumers to create and share their content related to the brand fosters a sense of ownership and community. User-generated content can serve as authentic testimonials and further enhance engagement.

#### 2.4.3.4 Recommendation

Consumer recommendation occurs when an individual suggests or endorses a product, service, or brand to others based on their own positive experience (Fan et al., 2023). Consumer recommendations often spread through word of mouth, whether in person or through digital channels (Escalas and Bettman, 2017). Consumer recommendations are a factor in shaping purchase decisions. Positive recommendations from peers, online reviews, or influencers can significantly impact consumers' intentions to buy a product or engage with a brand (Brooks et al., 2021). Recommendations contribute to building trust and credibility. Consumers often place high value on the opinions and experiences of others. A positive recommendation signals to potential buyers that a product or service has been tried, tested, and endorsed by their peers, fostering a sense of reliability. Consumer recommendations serve as social proof of a product's value and quality. In a social context, individuals are more likely to follow the lead of others, especially if they perceive those others as similar or credible (Rietveld et al., 2020). Recommendations provide tangible evidence of a positive experience, influencing others to follow suit. Consistent positive recommendations contribute to the development of brand loyalty. Consumers who receive or seek recommendations and have positive experiences are more likely to develop a strong affinity for a brand, leading to repeat business and long-term loyalty (Yang et al., 2023). Recommendations can simplify the decision-making process for consumers (Parsad et al., 2021). Faced with an abundance of choices, individuals often rely on the experiences and advice of others to narrow down options and make informed decisions. Positive recommendations are closely tied to consumers' intentions to take specific actions (Huang and Lin, 2022). Figure 2.15 establishes the conceptual framework of the study

H1c: "Celebrity endorsed advertisements have a positive effect on conative attributes as measured through consumer engagement, purchase intention, brand loyalty, celebrity loyalty, consumer advocacy and recommendation than non-celebrity endorsed advertisements"

Figure 2.15 Conceptual Framework



### 2.5 Moderators

Moderators are factors that influence the strength or direction of the relationship between two other variables. They help researchers identify the conditions under which a particular relationship is more or less pronounced (Bawack and Bonhoure, 2022). The presence of a moderating variable is often revealed through interaction effects in statistical models. An interaction effect signifies that the relationship between the independent variable and the dependent variable is contingent on the levels of the moderating variable. Moderating variables introduce context dependence into relationships. What might be a strong relationship under one set of conditions may be weaker or even reversed under different circumstances, as influenced by the moderating variable.

## 2.5.1 Consumer's age

This study recognizes the varying nature of consumer responses and introduces age of the consumer as a potential moderating variable. The focus was to understand whether the impact of celebrity endorsements varies across different age groups while analyzing its influence on consumer preferences within the footwear industry. According to the ELM, young consumers may engage in more extensive cognitive processing when exposed to celebrity endorsements due to their higher motivation and ability to process information critically. They may be more likely to scrutinize the details and features associated with endorsed products. ELM posits that peripheral cues, such as celebrity endorsements, can strongly influence affective responses, particularly in individuals with high motivation to process information. Young consumers, being more likely to be motivated and open to peripheral cues, may exhibit stronger affective responses. The model suggests that persuasion outcomes, including behavioral intentions (conative attributes), are influenced by the central or peripheral route of processing. Young consumers, being more influenced by peripheral cues, may demonstrate stronger intentions to act based on celebrity endorsements. Socioemotional selectivity theory proposes that as individuals age, they become more focused on emotion regulation and prioritize emotionally meaningful goals. Older

consumers may prioritize emotional well-being over the cognitive processing of celebrity endorsements. Given their selective attention to emotionally meaningful information, celebrity endorsements may have a weaker impact on cognitive, affective, and conative attributes among older consumers compared to their younger counterparts. Accordingly, H2 is proposed herein:

H2: "The influence of celebrity endorsements on cognitive attributes (H2a), affective attributes (H2b) and conative attributes (H2c) will be stronger amongst young age consumers than old age consumers"

### 2.5.2 Consumer's gender

Gender serves as a moderating variable (Wilson, 2011). Social identity theory suggests that individuals categorize themselves and others into social groups, and gender is a salient social category. Social cognitive theory suggests that individuals learn from observing others, and consumers, particularly females, may engage in social comparison processes with celebrities (Wheeler, 2009). Female consumers may be more likely to internalize information conveyed by celebrity endorsements, leading to heightened cognitive engagement and a more significant impact on attributes like brand awareness and product knowledge. The parasocial interaction theory proposes that consumers develop one-sided relationships with celebrities through media exposure, and females, in particular, may experience heightened emotional connections. The theory of planned behavior suggests that attitudes, subjective norms, and perceived behavioral control influence behavioral intentions (Thomson, 2006). The aesthetic appeal of footwear often varies between genders, and this can further influence the moderating role of gender (Aw and Labrecque, 2020). The visual and design elements emphasized in celebrity-endorsed footwear may resonate differently with male and female consumers (Bagozzi and Yi, 2012). Further, societal perceptions of gender roles and stereotypes can impact how consumers interpret and respond to celebrity endorsements. The framework proposes that due to social and psychological factors, female consumers will exhibit a stronger response to celebrity endorsements compared to their male counterparts (Parsad et al., 2021). This response is influenced by the interplay of identification, social comparison, and emotional connections, creating a gender-based moderation effect on the impact of celebrity endorsements on cognitive, affective, and conative attributes. Therefore, H3 considers that celebrity endorsements may evoke stronger positive emotions and attitudes among female consumers.

H3: "The impact of celebrity endorsements on cognitive attributes (H3a), affective attributes (H3b) and conative attributes (H3c) will be stronger among female consumers than among male consumers"

### 2.5.3 Ownership status of the brand

Understanding the influence of celebrity endorsements on consumer preference requisites a nuanced exploration of the moderating role of brand ownership status. This section examines how the ownership structure, distinguishing between celebrity-owned brands and those owned by third-party companies, moderates the influence of celebrity endorsements on cognitive, affective, and conative attributes among consumers within the footwear industry. When examining brand ownership status, cognitive engagement may differ based on whether the brand is celebrity-owned or owned by a third-party company. Celebrity-owned brands may elicit stronger cognitive responses as consumers may perceive a more direct link between the celebrity endorser and the product. The self-congruity theory suggests that consumers may associate the personal characteristics of a celebrity with the brand, leading to enhanced cognitive processing, brand recall, and product knowledge. For celebrity-owned brands, the parasocial interaction theory posits that consumers may feel a more personal connection to the celebrity endorser, leading to heightened emotional responses. On the other hand, thirdparty-owned brands may evoke affective responses based on the brand's established image and reputation. The ownership status serves as a moderating factor in shaping consumer attitudes, trust, and emotional engagement. The impact of celebrity endorsements on conative attributes may be influenced by the ownership structure. Celebrity-owned brands may generate stronger conative responses, as consumers may

be more inclined to support products associated with a celebrity they admire. Third-party-owned brands, however, may rely on the established reputation and credibility of the company, influencing purchase intentions and actual buying behavior. The Theory of Reasoned Action suggests that attitudes and subjective norms play a role in shaping behavioral intentions, and the ownership status of the brand may shape these factors differently for consumers. The source credibility theory proposes that the effectiveness of endorsements depends on the perceived expertise, trustworthiness, and attractiveness of the endorser. For celebrity-owned brands, the direct association with the celebrity endorser may enhance these credibility factors. In contrast, third-party-owned brands may rely on the established reputation and credibility of the company itself. The ownership status moderates the impact of celebrity endorsements on cognitive, affective, and conative attributes by shaping the perceived credibility and authenticity of the endorsement. Accordingly, H4 examines the moderating role of information about the ownership status of the brand upon the influence of celebrity endorsements on consumer preferences in footwear industry.

H4: "The impact of celebrity endorsements on cognitive attributes (H4a), affective attributes (H4b) and conative attributes (H4c) will be stronger with celebrity owned brands than company owned brands"

## **CHAPTER 3**

## RESEARCH METHODOLOGY

This chapter provides a discussion on the adopted research design and approach. Whether adopting a qualitative, quantitative, or mixed-methods approach, the rationale behind the selection is explicated. The chosen design aligns with the research objectives and questions, providing a foundation for gathering insights into the complexities of consumer preferences to celebrity endorsements. A detailed examination of the data collection methods follows, elucidating the tools and techniques employed to gather primary and secondary data. Whether through surveys, interviews, focus groups, or observational studies, the chapter delineates the strengths and limitations of each method. This chapter explains the methodologies followed to perform neuroscientific analysis of consumer responses through eye-tracking study. Rigorous attention is paid to ensuring the reliability and validity of the data, fostering confidence in the research outcomes. Ensuring the ethical integrity of the research is important. This chapter provides the ethical considerations governing the study, from informed consent and participant confidentiality to transparency in reporting results.

## 3.1 Introduction

Research methodology is the systematic framework that guides the entire research process, outlining the steps and procedures undertaken to investigate a specific topic. According to Fleming and Zegwaard (2018), research methodology can be understood as a "blueprint for how to collect, analyze, and interpret data to answer research questions, test hypotheses, or investigate specific topics". It includes several key components, starting with the research design, which can be qualitative, quantitative, or a mix of both, depending on the nature of the research (Bergkvist and Zhou, 2016). Qualitative designs examine complexities of a phenomenon through methods like interviews and case studies, while quantitative designs involve numerical

data collection and statistical analysis, often through surveys or experiments. Neuromarketing studies evaluate functioning of consumer brain through neuroscience equipment such as eye-tracking tools.

## 3.2 Research design

Research design is the structured plan that outlines the systematic approach researchers take to address their research questions or hypotheses. It serves as the blueprint for the entire research process, providing a clear roadmap for data collection, analysis, and interpretation. The choice of research design is influenced by the nature of the research problem and the goals of the study. This study adopted a mixed-methods approach comprising of experimental analysis, controlled laboratory experiment and qualitative enrichment. This methodological framework sought to provide a comprehensive understanding of the research questions at hand, embracing both quantitative and qualitative dimensions. The utilization of experimental analysis allowed for the manipulation of variables and the systematic observation of outcomes, enhancing the study's capacity to draw causal inferences. The incorporation of a controlled laboratory experiment added a layer of scientific basis, creating a controlled environment conducive to studying specific phenomena. This approach facilitated the isolation of key variables offered the opportunity to closely monitor and measure participants' responses. Study1 (Structural equation modelling) employed an experimental design involving actual data gathering through consumer surveys. The collected data was subjected to structural equation modeling (SEM) to understand relationships between variables and test proposed hypotheses. Participants, selected through judgemental sampling, provided understanding about cognitive, affective, and conative attributes related to celebrity-endorsed footwear. Study2, a controlled laboratory-based approach was adopted to examine the neuroscience components of consumer preferences. Participants, chosen through purposive sampling, went through a neuroscientific study using eye tracking technology. This advanced methodology captured participants' gaze patterns, visual attention, and emotional responses when

exposed to celebrity-endorsed footwear stimuli. This phase allowed comparing and contrasting the results obtained through experimental and neuroscientific methods.

In order to build the robustness of the study, the study began with eight structured interviews of 45 minutes each and seven focus group discussions in accordance with Foroudi et al. (2014). The goal was to capture a range of perspectives from academic, industrial, and consumer stakeholders regarding the chosen research topic. The structured interviews were carefully designed to examine various aspects of academic, industrial, and consumer perceptions, opinions, and insights related to the research questions, hypotheses, constructs, and influential factors. The choice of structured interviews allowed for a systematic exploration of participants' views, ensuring a depth of understanding. Seven focus group discussions were conducted to foster an interactive and dynamic environment for exploring shared perceptions and diverse opinions. The collaborative nature of focus groups provided a platform for participants to express their thoughts, critique hypotheses, and contribute to the refinement of constructs and factors under consideration

Following (Hussain et al., 2020), purification of research items was undertaken to ensure the quality, relevance, and reliability of data in a study. This methodological step involves refining and clarifying the variables, measures, and instruments used in research to enhance the accuracy and validity of the findings. The process typically begins with a thorough review of existing literature, where the identified constructs and variables (celebrity endorsements, consumer preferences, cognitive attributes, affective attributes and conative attributes) were scrutinized and validated. Once the initial set of research items was determined, a pilot study or pre-test phase was conducted to assess the clarity and effectiveness of measurement instruments. This pilot phase allowed identifying and rectifying any ambiguities, inconsistencies, or potential biases in the items, ensuring that participants interpreted and responded to them as intended. Feedback from pilot participants contributed to refining the wording, structure, and overall appropriateness of the research items. Purification involved assessing the psychometric properties of measurement tools, such as reliability and validity.

Reliability ensures consistency in measurement, while validity ensures that the instrument accurately captures the intended constructs. While incorporating research items, constructs, and variables from prior studies conducted in culturally and societally distinct settings, a methodical adaptation is imperative to ensure their appropriateness for the present study's unique context (Malhotra et al., 1996). Language considerations, particularly in translation, play a role, ensuring accurate portrayal while accommodating linguistic nuances. Prior to integration into the main study, pilot test is conducted with participants from the target cultural setting, allowed for the identification of potential misunderstandings or cultural insensitivities. Cultural sensitivity and appropriateness were carefully evaluated, guaranteeing that the language employed respects local norms. Further refinement was achieved through cognitive interviews, providing qualitative insights into participants' understanding of the adapted research items. Expert consultations with scholars acquainted with both the cultural context of the present study and the original studies offered valuable guidance. Adjustments and refinements were then made based on the feedback obtained, ensuring that the research items were not only culturally relevant but also align seamlessly with the studied population's nuances.

# 3.3 Methodology for Study1 (Structural Equation Modelling)

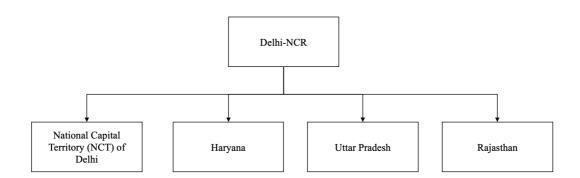
The research methodology for Study1 (Structural equation modelling) involves an experimental design to examine the influence of celebrity endorsements in footwear industry on consumer preferences. This study aims to gather actual data through participant exposure to varied stimuli related to celebrity endorsements and subsequently employ structural equation modeling (SEM). The following sections explain the methodology adopted for conducting Study1 in detail.

### 3.3.1 Sampling design

Sampling design is the systematic plan or strategy that is developed to select a subset of elements from a larger population for the purpose of study or analysis. It

involves making decisions about how to draw a representative sample that accurately reflects the characteristics of the entire population. Delhi-National Capital Region (NCR) was chosen as the study's target population due to its role in the Indian footwear industry and its status as a prime location for showcasing celebrity endorsements. The region exhibits prominence, with approximately 28,000 pairs of shoes produced daily. Online transactions alone contribute to the sale of around 14,000 pairs daily, emphasizing the significant consumer engagement in the digital marketplace (Bera, 2023). Monthly, an average of 12,60,000 pairs of shoes are sold, highlighting the vibrant and dynamic nature of the footwear market in Delhi-NCR. The selection of Delhi-NCR is further justified by the region's receptivity to celebrity-endorsed advertisements, providing an ideal milieu for the study's objectives. As a melting pot of diverse cultures and backgrounds, Delhi-NCR mirrors India's rich cultural tapestry. This diversity extends to consumer interests, creating a comprehensive and varied demographic mix relevant to the research design. Geographically, Delhi-NCR encompasses districts across the states of Haryana, Uttar Pradesh, Rajasthan, and the National Capital Territory (NCT) (Figure 3.1). This extensive coverage offers a substantial and diverse geographical area for the study, ensuring representation from different regions with unique socio-cultural characteristics.

Figure 3.1. Delhi National Capital Region composition



### 3.3.2 Sampling frame

A well -crafted sampling frame was established to ensure the study's relevance and practicality, targeting GenY and GenZ consumers who exhibit heightened susceptibility to celebrity endorser influence. Given their propensity to be twice as likely to make purchases influenced by celebrities they admire, participants in the age group of 18 to 60 years were included in the study (Tian et al., 2023). Working population within this demographic wields the highest discretionary purchasing power and displays affinity towards celebrities and their endorsements (Susmann et al., 2022).

## 3.3.3 Sample size

Sample size refers to the number of individual units, participants, or observations included in a research study. It influences the statistical power and precision of the study. Determining an appropriate sample size is essential for ensuring that study results are reliable, generalizable, and can effectively answer the research questions or test hypotheses. A larger sample is more likely to be representative of the entire population from which it is drawn. This enhances the external validity of the study, allowing generalizing the findings to a broader population. The statistical power of a study is the likelihood of detecting a true effect if it exists. Increasing the sample size generally improves the statistical power, making it more likely to identify real relationships or differences. A larger sample size reduces the margin of error and increases the precision of estimates. This is particularly important in inferential statistics where inferences are made about a population based on a sample. The determination of the appropriate sample size involves considering factors such as the study's research design, the variability in the population, the desired level of confidence, and the effect size (magnitude of the relationship or difference being studied). Wolf et al. (2013) suggested that in SEM studies sample size needs to be decided in accordance with the complexity of the research variables and the degree of relationships between the constructs. They suggested adopting a sample size of 460 for two factor CFA, for simple relationship structures. They commented upon the 10x rule in SEM studies which states that sample size should equate with 10 times the number of research items covered (Barclay, Higgins, & Thompson, 1995). However, linear progression in SEM studies may not produce accurate results and may not be suitable for inferential purposes. Following Muthén & Muthén (2002), monte carlo simulation with indicated a sample size of 569, while Gurland & Tripathi (2012) supported a

sample size of 782 by utilizing Gamma-exponential method. Kock & Hadya (2018) supported Inverse square root method, which indicated a sample size of 1,207. Accordingly, 1,316 was taken minimum sample size to ensure the validity, reliability and robustness of the study (Hair et al., 2010).

### 3.3.4 Sampling technique

Sampling techniques refer to the methods used to select a subset of individuals or items from a larger population for the purpose of research. The goal of sampling is to draw a representative sample that accurately reflects the characteristics of the entire population. Different sampling techniques are employed based on the nature of the study, the research objectives, and practical considerations. In random sampling, every individual or item in the population has an equal chance of being selected. This method helps ensure that the sample is representative and minimizes bias. In stratified sampling, the population is divided into subgroups or strata based on certain characteristics (such as age, gender, or income). Samples are then randomly selected from each stratum. This technique allows for representation from various subgroups. Systematic sampling involves selecting every kth individual from a list after a random start. For example, if every 5th person is chosen from a list of individuals, the sampling interval is 5. In cluster sampling, the population is divided into clusters, and then clusters are randomly selected. The individuals within the selected clusters form the sample. This method is useful when the population is naturally grouped. Convenience sampling involves selecting individuals who are easiest to reach or are readily available. While this method is convenient, it may introduce bias, as the sample may not be representative of the entire population. Purposive sampling involves selecting individuals based on specific characteristics or criteria that are relevant to the research objectives. This method is often used in qualitative research. Snowball sampling is commonly used in studies where it is challenging to identify and access participants. Initially, a small group of participants is identified, and then they refer additional participants. Quota sampling involves selecting individuals based on pre-defined quotas for certain characteristics, such as age, gender, or occupation. The aim is to ensure proportional representation of these characteristics in the sample.

Purposive judgmental sampling was adopted in this research due to the nuanced and targeted nature of the study investigating the influence of celebrity endorsements in the footwear industry on consumer preferences. The decision to use this sampling method was driven by specific considerations that align with the unique objectives of the research. Given the central focus on the impact of celebrity endorsements, the study sought participants who demonstrated affinity for celebrities within footwear preferences. Purposive sampling allows for the intentional selection of individuals who possess these specific characteristics, ensuring that the sample comprises those likely to offer valuable insights into the dynamics under investigation. This approach is relevant when exploring the preferences of individuals who are trendsetters, fashion influencers, or those with a significant online presence in the footwear domain. Purposive sampling allows for the intentional selection of participants from these targeted cultural or subcultural groups, ensuring that the findings capture the diversity and intricacies within the population. This deliberate selection process is crucial for obtaining in-depth and culturally relevant perspectives on how celebrity endorsements impact consumer choices. Further, considering the exploratory nature of the research design, purposive sampling facilitates the identification of participants who can provide rich and detailed information, contributing to a comprehensive understanding of the complex relationships between celebrity endorsements and consumer preferences in the footwear industry. This targeted approach is particularly efficient in the context of resource constraints and when the study necessitates participants with specific characteristics.

#### 3.3.5 Measurement scale

A measurement scale is a systematic method for assigning numbers or labels to characteristics of objects, individuals, or events based on specific rules or criteria. Measurement scales are crucial in research and data collection as they provide a structured way to quantify and analyze various attributes, variables, or constructs. Different types of measurement scales exist, each serving specific purposes in research.

A 5-point Likert scale (strongly disagree to strongly agree) was adopted for the study. A 5-point Likert scale strikes a balance between providing sufficient detail to capture variation in responses and keeping the survey or questionnaire simple and manageable. It is a moderate level of granularity that allows respondents to express a nuanced range of opinions without overwhelming them with too many response options. The 5-point scale is easy for respondents to interpret and use. It provides a clear set of response options, ranging from, for example, "Strongly Disagree" to "Strongly Agree", which are easy to understand and navigate. This simplicity encourages higher response rates and reduces the likelihood of respondents feeling overwhelmed by too many choices. A 5-point Likert scale facilitates straightforward statistical analysis. The ordinal nature of the scale allows for the calculation of basic descriptive statistics like means and medians, and it is compatible with non-parametric statistical tests. The simplicity of the scale also aligns well with the assumptions of many statistical techniques. The following sections explain the variables that were measured through the research instrument.

### 3.3.5.1 Attractiveness

Attractiveness is a component of consumers perceptions of celebrity endorsers and can significantly impact their preferences for endorsed products. It serves as a significant independent variable in the research, influencing consumer preferences in footwear industry. It captures the subjective perceptions of consumers regarding the physical appeal, charisma, and overall attractiveness of the celebrity endorsing a particular brand or product. As an independent variable, attractiveness is manipulated or measured to examine its impact on the dependent variables (cognitive attributes, affective attributes, conative attributes). The operationalization of the attractiveness independent variable involves the development or selection of measurement scales that effectively capture consumers' perceptions. These scales included specific descriptors related to physical appearance, charm, and general appeal. The choice of attractiveness as an independent variable is often grounded in theoretical frameworks such as the Source Attractiveness Model, which posits that the perceived attractiveness of a communicator (celebrity endorser) positively influences the effectiveness of persuasive

communication. It is anticipated that highly attractive celebrities will exert a more pronounced influence on consumer perceptions, potentially leading to increased positive attitudes, stronger emotional connections, and higher behavioral intentions towards endorsed products.

## 3.3.5.2 Credibility

Source credibility as an independent variable pertains to the perceived trustworthiness, expertise, and overall believability of the celebrity endorser. Credibility plays a role in shaping consumers' attitudes and behaviors, influencing their perceptions of both the endorser and the endorsed footwear products. To quantify credibility as an independent variable, you would employ established measurement scales designed to capture various facets of credibility. Used scale assessed dimensions of trustworthiness, expertise, and reliability of the celebrity endorser. Theoretical frameworks of source credibility model guided the conceptualization and measurement of credibility. This model suggests that a credible source, such as a celebrity endorser, is more likely to influence attitudes and behaviors positively. As an independent variable, credibility is hypothesized to exert a significant influence on various dependent variables. The expectation is that a more credible celebrity endorser will positively shape these consumer responses.

# 3.3.5.3 Celebrity product congruency

Celebrity product congruency assesses the perceived fit or compatibility between the celebrity endorser and the endorsed footwear products. This construct aims to capture how well consumers perceive the celebrity's image, values, and lifestyle aligning with the characteristics of the promoted footwear brand. The measurement items included factors such as the celebrity's lifestyle, personal values, and overall image as perceived by consumers. For instance, participants were asked to rate the compatibility between the celebrity's fashion choices, public persona, and the type of footwear being endorsed. Celebrity Product Congruency is expected to influence various consumer responses, including cognitive attributes (perception and recall of the

product), affective attributes (emotional connections and attitudes toward the product), and conative attributes (purchase intention, loyalty). Celebrity Product Congruency contributes to shaping the brand image associations in consumers' minds. If consumers perceive a strong alignment between the celebrity and the endorsed footwear, it can enhance the brand's image, leading to increased trust and positive attitudes.

# 3.3.5.4 Cognitive attributes

Cognitive attributes imply the mental processes and perceptions that consumers engage in when exposed to celebrity-endorsed footwear products. Cognitive attributes encompass how individuals attend to, process, and remember information related to the endorsed products and celebrity endorsers. Amongst cognitive attributes, attention pertains to the extent to which consumers focus on and notice the celebrity-endorsed footwear advertisements. This involves capturing the initial attention of consumers through effective marketing strategies, such as attention-grabbing visuals or compelling messaging. Recall involves consumers' ability to remember information about the endorsed footwear products and the associated celebrity endorser after exposure to the advertisements. This cognitive attribute assesses the effectiveness of the celebrity endorsement in creating a lasting impression in consumers' memory. Awareness reflects consumers' consciousness and recognition of the celebrity-endorsed footwear brand. It involves assessing the extent to which consumers are familiar with the product and the celebrity endorser, measuring the overall visibility and recognition of the endorsed brand in the market. Perception encompasses consumers' interpretation and understanding of the celebrity-endorsed footwear products. This cognitive attribute assesses how consumers perceive the qualities, features, and value proposition of the endorsed products based on their exposure to celebrity endorsements. Beyond general recall, this aspect specifically focuses on consumers' ability to remember details about the celebrity endorser, such as their image, personality, and associations. This is crucial for understanding the impact of the celebrity's persona on the overall effectiveness of the endorsement.

#### 3.3.5.5 Affective attributes

Affective attributes imply to the emotional responses and attitudes that consumers develop in relation to celebrity-endorsed footwear products. These attributes examine the emotional and affective connections consumers form, as well as the overall sentiments and attitudes they hold. Amongst affective attributes, emotions encompass the range of feelings and affective responses triggered by exposure to celebrity-endorsed footwear advertisements. This includes positive emotions, such as joy, excitement, or admiration, as well as potential negative emotions that may arise based on the perceived incongruence or controversy surrounding the celebrity endorser. Attitude represents the overall evaluation and predisposition that consumers develop towards the endorsed footwear products and the brand. This cognitive and affective blend reflects consumers' general liking or disliking of the products associated with the celebrity endorser. This attribute measures the depth of consumers' emotional attachment and affection for the endorsed footwear brand.

Love for the brand reflects a strong emotional bond that goes beyond mere product satisfaction, contributing to long-term loyalty and positive word-of-mouth. Sentiments capture the prevailing emotional tone or mood associated with the celebrity-endorsed footwear products. This includes assessing whether consumers express positive, negative, or neutral sentiments in their responses to the advertisements and the brand. Affection involves the warmth and positive regard that consumers feel towards the endorsed footwear brand. This emotional connection contributes to the building of a favorable brand image and fosters a sense of loyalty and trust. Affective attributes significantly influence subsequent consumer behaviors and preferences. Positive emotions and attitudes are hypothesized to contribute to increased purchase intention, brand loyalty, and positive word-of-mouth.

# 3.3.5.6 Conative attributes

Conative attributes refer to the behavioral intentions and actions that consumers exhibit in response to celebrity-endorsed footwear products. These attributes focus on

the behavioral aspects of consumer decision-making and responses. Amongst conative attributes, purchase intention reflects consumers expressed likelihood or willingness to buy the endorsed footwear products. This conative attribute assesses the immediate behavioral inclination towards making a purchase as a result of exposure to celebrity endorsements. Loyalty involves consumers commitment and allegiance to the endorsed footwear brand over time. This conative attribute goes beyond a one-time purchase intention, capturing the likelihood of repeated purchases and sustained engagement with the brand. Engagement measures the level of active involvement and interaction consumers have with the endorsed footwear brand. This could include participation in brand-related activities, sharing brand content, and overall engagement with the brand beyond the point of purchase. Recommendation assesses consumers' willingness to endorse or recommend the endorsed footwear products to others in their social circles. This conative attribute reflects the potential positive word-of-mouth generated by satisfied consumers. Conative attributes play a role in shaping actual consumer behaviors and preferences. Positive conative responses, such as high purchase intention, loyalty, and engagement, are hypothesized to contribute to the overall success of celebrity endorsements in influencing consumer decisions. Figure 3.2 provides the research framework tested for study1.

Figure 3.2 Research framework

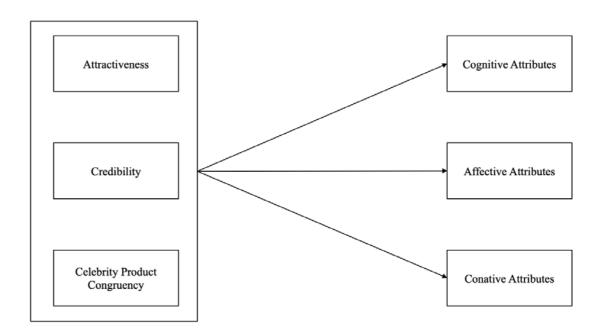
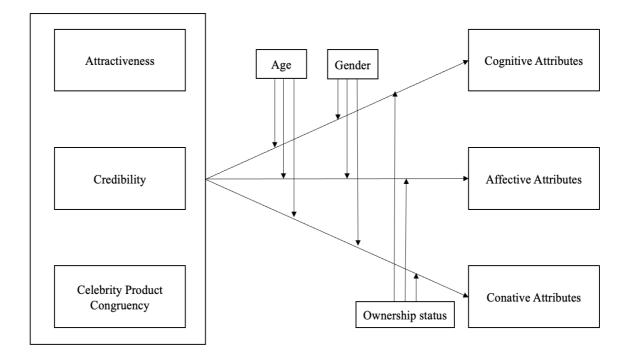


Figure 3.3 provides the Study1 (Structural equation modelling) research framework post incorporation of moderators moderating the influence of celebrity endorsements in footwear industry on consumer preferences.

Figure 3.3 Research framework with moderators



#### 3.4 Pre-test

The pre-test aims to evaluate the clarity, relevance, and effectiveness of the survey instrument designed for the upcoming study on the influence of celebrity endorsements in the footwear industry on consumer preferences. This iterative process seeks to identify and rectify potential issues with the questionnaire before its deployment in the main study, ensuring the reliability and validity of the data collected (Perneger et al., 2015). According to Zielhuis et al. (2022), pilot study is considered similar to pre-test which signifies "small-scale, preliminary research investigation conducted before the main or full-scale study". Pre-test was performed on 95 participants complying with Malhotra et al. (1996). A structured questionnaire was crafted, incorporating the constructs, attractiveness, credibility, celebrity product congruency, cognitive attributes, affective attributes, and conative attributes. Responses were collected on a five-point Likert scale. To ensure the reliability of the

constructs, a reliability test was conducted using Cronbach's alpha with a threshold value of 0.7. A "significance correlation coefficient (p < 0.05)" was further considered (Hair et al., 2010). All constructs demonstrated internal consistency, with Cronbach's alpha exceeding 0.8. Research items with an "inter-item correlation>0.3" were retained, ensuring the coherence and consistency of the questionnaire (Bagozzi and Yi, 2012). 24 participants provided qualitative feedback, suggesting minor alterations to the wording of certain questionnaire statements.

Participants offered perspectives on the wording of questionnaire statements, highlighting the varied ways in which individuals interpret and perceive celebrity endorsements. Some participants drew from their personal experiences to highlight aspects they found particularly relevant or resonant in the questionnaire. This enriched the research process by incorporating real-world consumer perspectives. Feedback from participants acknowledged the complexity of constructs such as celebrity product congruency and affective attributes. Some participants expressed appreciation for the study's objectives, noting the relevance of investigating the impact of celebrity endorsements in the footwear industry. The pre-test confirmed the internal consistency and reliability of the questionnaire constructs. The refined survey instrument demonstrated robustness, aligning with best practices in survey research.

## 3.5 Methodology for Study2 (Eye tracking analysis)

The primary objective of Study2 is to examine the neuroscientific aspects of consumer preferences towards celebrity endorsements in the footwear industry. Employing laboratory-based methods, this study aims to investigate the neural mechanisms underlying cognitive, emotional and behavioral processes when exposed to celebrity-endorsed footwear advertisements. The research design is experimental, employing neuroscientific techniques such as eye tracking to capture real-time cognitive, affective and behavioral responses. The study incorporates a controlled laboratory environment to minimize external influences on participants. A diverse sample of 45 participants aged 18 to 30, representing the target demographic for the

footwear industry, were recruited. Participants with varying levels of exposure to celebrity endorsements contribute to a comprehensive understanding of neural responses. Participants went through a pre-experiment screening to ensure eligibility and absence of any neurological or psychological conditions that could affect the study's outcomes.

Participants were exposed to carefully selected celebrity-endorsed footwear advertisements while their eye movements were tracked using webcam based eye tracking technology. This phase aimed to capture attention patterns and visual engagement. Quantitative data from eye tracking was subjected to statistical analysis. Statistical methods, including pattern recognition algorithms, were employed to identify neuroscientific patterns associated with different levels of celebrity endorsement effectiveness. Participants were fully informed about the nature of the study, the neuroscientific methods used, and the confidentiality of their data. Informed consent was obtained, and participants had the option to withdraw at any point. Documentation was maintained, including participant demographics, neuroscientific data, and any unforeseen events during the experimental sessions. Table 3.1 explains the meaning of key terminologies involved in eye tracking analysis.

**Table 3.1** Terminologies in eye-tracking analysis referred to in Study2 (Eye tracking analysis)

Terminology	Particulars
Area of Interest (AOI)	Area of Interest (AOI) refers to specific regions or elements within a visual stimulus that researchers define for analysis. These areas can include product logos, text, images, or any other components of interest. Analyzing eye movements within AOIs helps understand which elements attract more attention.
Entry time	Entry time measures the duration it takes for a participant's gaze to enter a specific AOI from the moment the stimulus

	is presented. It provides insights into the speed at which individuals direct their attention to a particular area.
Total fixation time	Total fixation time represents the cumulative duration during which a participant's gaze remains fixed on a specific AOI. It is a metric for understanding the sustained attention or interest in a particular element within the stimulus.
Saccades	Saccades are rapid, involuntary eye movements that shift the gaze from one point to another. They occur between fixations and play a vital role in redirecting attention across different areas of a visual stimulus.
Fixation	Fixation refers to a period during which the eyes remain relatively stable, focusing on a specific point or area. Fixations provide information about the duration and location of visual attention, indicating which elements are attracting sustained interest.
Gaze plot	A gaze plot is a visual representation of a participant's eye movements over time. It shows the sequence of fixations and saccades, allowing researchers to observe the scan path and identify patterns in visual attention.
Heat map	A heat map is a graphical representation that uses color to indicate the intensity or frequency of fixations on different areas of a stimulus. Hotter colors (e.g., red) represent higher attention, while cooler colors (e.g., blue) indicate lower attention.
Pupil dilation	Pupil dilation refers to the changes in the size of the pupils in response to varying levels of light or cognitive load. In eye tracking, it can provide insights into emotional and cognitive processes, such as arousal or mental effort.

Scan path	A scan path is the trajectory of eye movements as individuals explore a visual stimulus. It shows the order in which different areas are fixated, providing a sequential
	representation of visual attention.
Fixation Duration	Fixation duration is the length of time the eyes remain stable on a specific point during a fixation. Shorter or longer fixation durations can indicate different cognitive processes, such as recognition or in-depth processing.

Employing eye tracking technology allows monitoring and analyzing participants' eye movements and gaze patterns. Cognitively, eye tracking helps in understanding how celebrities capture consumers' attention and whether they influence information processing. The study tracked which elements of the endorsement drew the most attention, indicating the cognitive impact on memory and recall. Affective attributes, such as emotional responses were evaluated by observing gaze patterns on facial expressions or emotionally charged elements in the endorsement. The study evaluated the emotional engagement of consumers, exploring how celebrities contribute to shaping affective responses. Conative attributes were explored by analyzing gaze patterns on product placements or call-to-action elements evaluating persuasive impact of celebrity endorsements on consumers' decision-making processes. The stimulus material included selected advertisements featuring celebrity endorsements and control ads without celebrity endorsements for comparison. Eyetracking equipment included webcam based calibrated eye-trackers for each participant before to enhance data accuracy. Following Pelau et al. (2022), the participants were randomly divided groups, with each group exposed to a different set of stimuli (celebrity-endorsed vs. non-celebrity).

The participants were instructed to view the advertisements naturally while their eye movements were tracked. Accordingly, two set of endorsements were prepared.

One featured the celebrity endorsing the product and the other featured the product without the celebrity. The celebrity was selected on the basis of a pre-test. Following Ferguson and Mohan (2020), consumers who were not related with Study1 were requested to suggest celebrities (actors and sports persons) endorsing footwear products that they consider favourable and will be acceptable by other consumers. Virat Kohli, Anushka Sharma, Kartik Aryan, Malaika Arora Khan, Samantha Ruth Prabhu and Salman Khan were the names that were finalized. 100% participants knew who these celebrities were. 96% of participants favoured them or were neutral towards them as their preferred celebrities for endorsements. 92% participants indicated that these participants were fit for footwear endorsements (m=3.67).

#### 3.6 Test of research bias

Testing research bias involves implementing strategies and methods to assess and mitigate potential biases that could affect the validity and reliability of research results. Research bias can occur at various stages of the research process, including study design, data collection, analysis, and interpretation. To mitigate self-selection bias in the research, rigorous measures were implemented during participant recruitment. To counteract social desirability bias, which may lead participants to respond in a manner they perceive as socially acceptable rather than expressing their true opinions, several methodological precautions were implemented. Participants were assured of the confidentiality of their responses, emphasizing the importance of honest feedback. The survey instrument incorporated indirect or disguised questioning techniques to encourage more authentic responses.

By structuring questions in a way that minimizes the pressure to conform to societal norms, we aimed to elicit more genuine and unbiased participant perspectives, reducing the impact of social desirability bias on the accuracy of our findings. To assess and control for common method bias, a combination of procedural and statistical remedies was employed. Procedurally, the study utilized a counterbalanced design in presenting stimuli and ordering survey questions to minimize the systematic effects of

response tendencies. The study employed method variance control techniques, such as employing multiple methods for data collection (eye tracking technology and postviewing surveys). Statistical analyses, including the use of Harman's single-factor test, were also conducted to evaluate the extent of common method bias. By employing these methodological safeguards, the study sought to enhance the robustness of the results and ensure that any observed effects were not merely artifacts of the research method but reflective of genuine relationships between variables.

#### 3.7 Ethical considerations

Ethical considerations in research are important to ensure the well-being, rights, and privacy of participants, as well as the integrity of the research process. The study adhered to ethical guidelines to maintain the trust of participants and uphold the credibility of the study. Prior to participating in a study, participants were fully informed about the purpose, procedures, potential risks, and benefits. The study obtained obtain voluntary and explicit consent, ensuring participants understand their right to withdraw at any time without consequences. The study safeguarded the confidentiality of participants' information.

All data was anonymized and stored securely to prevent the identification of individual participants. Maintaining confidentiality was considered crucial for protecting participants from potential harm or unintended consequences. The study provided a clear and accurate representation of their research, including the purpose, methods, and potential implications. Transparency promoted trust among participants and the broader research community. The participants were debriefed and explained the study's objectives and any questions or concerns were addressed. Debriefing contributes to participants' understanding and helps maintain a positive research experience. The study adhered to ethical standards in the publication and dissemination of the findings. This included adequate reporting of methods, results, and conclusions.

## **CHAPTER 4**

## **RESULTS AND ANALYSIS**

Chapter 4 covers model results and data analysis which are integral components of the research process, involving the examination, transformation, and comprehension of raw data to derive meaningful insights and conclusions.

# 4.1 Study1 (Structural equation modelling) results

The study aims to explore the relationship between celebrity endorsements in the footwear industry and consumer preferences, focusing on cognitive, affective, and conative attributes. The study further investigates the moderation effects of demographic variables (age and gender) and ownership status (owned by celebrity or third party) on this relationship. A total of 1,316 participants were surveyed to gather data on offline mode by physically visiting footwear retail shops in Delhi-NCR. Independent variable was Celebrity Endorsements (comprising Attractiveness, Credibility, and Celebrity Product Congruency) and the dependent variables were Cognitive, Affective, and Conative attributes. The moderators were Age, Gender, Ownership Status. Structural Equation Modeling (SEM) was employed to examine the relationships between variables. Table 4.1 provides the summary of the participants who participated in the survey.

**Table 4.1** Summary of the participants

Particulars	Number	%
Age (18-24)	208	15.81%
Age (25-34)	479	36.40%
Age (35-44)	317	24.09%
Age (45-54)	149	11.32%
Age (55 and above)	163	12.39%
Gender (Male)	622	47.26%

Gender (Female)	694	52.74%
Education (High School or Less)	238	18.09%
Education (Bachelor's Degree or equivalent)	411	31.23%
Education (Master's Degree or equivalent)	385	29.26%
Education (Doctoral)	282	21.43%
Occupation: Student	373	28.34%
Occupation: Professional	412	31.31%
Occupation: Homemaker	378	28.72%
Occupation: Retired	58	4.41%
Occupation: Unemployed	95	7.22%
Income (Less than Rs. 2,50,000)	207	15.73%
Income (Rs. 2,50,001 - Rs. 5,00,000)	326	24.77%
Income (Rs. 5,00,001 - Rs. 10,00,000)	389	29.56%
Income (Rs. 10,00,001 - Rs. 25,00,000)	276	20.97%
Income (Rs. 25,00,001 or more)	118	8.97%

Table 4.1 provides an overview of the participant demographics in the study, detailing characteristics such as age, gender, education, occupation, and income. Majority of participants fall within the 25-34 age range (36.40%), followed by the 35-44 age group (24.09%). The gender distribution is relatively balanced, with 47.26% male participants and 52.74% female participants. Education levels vary, with a significant portion holding a Bachelor's degree or equivalent (31.23%) and a comparable percentage possessing a Master's degree or equivalent (29.26%). 28.34%, identified as students, while professionals constituted 31.31% of the sample. Additionally, homemaker, retired, and unemployed categories accounted for 28.72%, 4.41%, and 7.22% of participants, respectively. Examining income distribution, participants with an income ranging from Rs. 5,00,001 to Rs. 10,00,000 constitute the largest group at 29.56%. Notably, 20.97% of participants reported an income between Rs. 10,00,001 and Rs. 25,00,000, while 8.97% had an income of Rs. 25,00,001 or more. The income brackets below Rs. 5,00,000 are also represented, with 15.73% earning less than Rs. 2,50,000.

## 4.1.1 Validity and reliability analysis

Reliability refers to the consistency and stability of a measurement instrument or tool, indicating the extent to which it produces consistent results when applied repeatedly to the same phenomenon. A reliable instrument should yield similar measurements under consistent conditions. There are various types of reliability assessments, including test-retest reliability, which examines consistency over time, and internal consistency reliability, which assesses the reliability of different items within the same instrument. High reliability instills confidence in the accuracy and dependability of the measurement, enhancing the credibility of the research. Validity pertains to the accuracy and appropriateness of a measurement instrument in capturing the construct it intends to assess. Validity assesses whether the instrument truly measures what it claims to measure. Different types of validity include content validity (ensuring the relevance and representativeness of the items), construct validity (evaluating the instrument's ability to measure the intended theoretical construct), and criterion-related validity (establishing the correlation between the instrument and an external criterion). Ensuring validity is essential for drawing meaningful and accurate conclusions from research findings (De Vaus, 2002). The following sections explain the various validity and reliability tests made to ensure the robustness of the study.

### 4.1.2 Convergent validity

Convergent validity assesses the extent to which different measures that are theoretically supposed to be measuring the same underlying construct are correlated. Convergent validity examines whether multiple measures of the same construct converge or come together. The expectation is that these measures should show a high degree of correlation because they are intended to capture the same underlying concept. One common method to assess convergent validity is to calculate the Average Variance Extracted (AVE) for each construct in a measurement model (Table 4.2). The AVE represents the average amount of variance that is captured by the construct's items compared to the amount of variance due to measurement error. A higher AVE suggests better convergent validity. Table 4.2 provides the convergence validity test of the measurement model for constructs in the study, including Attractiveness, Credibility,

Celebrity Product Congruency, Cognitive Attributes, Affective Attributes, and Conative Attributes. Each construct is represented by several items, and the table presents factor loadings, Average Variance Extracted (AVE), Composite Reliability (CR), and Cronbach's alpha, which collectively assess the reliability and validity of the measurement model.

**Table 4.2** Convergent validity analysis

Construct	Particulars	Loading value	AVE	CR	Cronbach's alpha
	Attra1	0.85			
	Attra2	0.84			0.887
Attractiveness	Attra3	0.87	0.783	0.856	
	Attra4	0.87			
	Attra5	0.83			
	Cred1	0.87			
	Cred2	0.81			
Credibility	Cred3	0.75	0.793	0.872	0.831
	Cred4	0.77			
	Cred5	0.83			
	CPC1	0.83			
Celebrity Product	CPC2	0.84	0.811	0.006	0.883
Congruency	CPC3	0.82	0.811	0.886	
	CPC4	0.85			
	CA1	0.79			0.817
	CA2	0.81			
Cognitive	CA3	0.85	0.803	0.785	
Attributes	CA4	0.83	0.803	0.785	
	CA5	0.87			
	CA6	0.88			
	AA1	0.81			0.864
	AA2	0.86			
Affective	AA3	0.82	0.766	0.017	
Attributes	AA4	0.83	0.766	0.766 0.817	
	AA5	0.79			
	AA6	0.83			
Conative	CNA1	0.81	0.707	0.924	0.047
Attributes	CNA2	0.83	0.787	0.834	0.847

CNA3	0.78
CNA4	0.85
CNA5	0.82
CNA6	0.84

The factor loading for Attractiveness (Attra1 through Attra5) range from 0.83 to 0.87, indicating a strong association between the items and the Attractiveness construct. The AVE for Attractiveness is 0.783, surpassing the recommended threshold of 0.50, affirming good convergent validity. The CR value (0.856) and Cronbach's alpha (0.887) both exceed 0.70, suggesting high internal consistency and reliability. Loading values for Credibility items (Cred1 through Cred5) range from 0.75 to 0.87, demonstrating substantial connections between the items and the Credibility construct. The AVE (0.793) meets the criterion for convergent validity, while the CR value (0.872) and Cronbach's alpha (0.831) indicate strong internal consistency and reliability. For Celebrity Product Congruency, loading values (CPC1 through CPC4) range from 0.82 to 0.85, highlighting robust associations with the construct. The AVE (0.811) signifies good convergent validity, while the CR value (0.886) and Cronbach's alpha (0.883) suggest high internal consistency and reliability. Loading values for Cognitive Attributes items (CA1 through CA6) range from 0.79 to 0.88, indicating strong associations with the Cognitive Attributes construct. The AVE (0.803) exceeds the threshold for convergent validity, while the CR value (0.785) and Cronbach's alpha (0.817) suggest satisfactory internal consistency and reliability. Loading values for Affective Attributes items (AA1 through AA6) range from 0.79 to 0.86, demonstrating robust connections with the Affective Attributes construct. The AVE (0.766) meets the criteria for convergent validity, and the CR value (0.817) and Cronbach's alpha (0.864) indicate high internal consistency and reliability. Loading values for Conative Attributes items (CNA1 through CNA6) range from 0.78 to 0.87, highlighting strong associations with the Conative Attributes construct. The AVE (0.787) suggests good convergent validity, while the CR value (0.834) and Cronbach's alpha (0.847) indicate high internal consistency and reliability.

## 4.1.3 Discriminant validity

Discriminant validity evaluates the extent to which different constructs, or measures of distinct theoretical concepts, are truly distinct from one another. It assesses whether a measurement tool is successful in capturing a specific construct and whether that construct is different from others in the study. Discriminant validity is often assessed by examining the correlations between different constructs. If the correlation between two constructs is high, it may suggest that the measures are not distinct, raising concerns about discriminant validity (Hair et. al., 2010). Fornell-Larcker criterion involves comparing the square root of the AVE for each construct with the correlations between that construct and other constructs (Table 4.3). If the square root of the AVE for a construct is greater than its correlations with other constructs, it suggests discriminant validity.

**Table 4.3** Discriminant validity

	Attractiveness	Credibility	Celebrity Product Congruency	Cognitive Attributes	Affective Attributes	Conative Attributes
Attractiveness	0.88					
Credibility	0.29	0.89				
Celebrity Product Congruency	0.31	0.31	0.90			
Cognitive Attributes	0.17	0.22	0.13	0.90		
Affective Attributes	0.21	0.24	0.14	0.31	0.88	
Conative Attributes	0.20	0.21	0.11	0.16	0.14	0.89

Table 4.3 presents the correlation matrix for discriminant validity, examining the relationships between different constructs in the study—Attractiveness, Credibility, Celebrity Product Congruency, Cognitive Attributes, Affective Attributes, and Conative Attributes. The diagonal elements represent the square root of the Average Variance Extracted (AVE) for each construct, while the off-diagonal elements display the correlations between constructs. This table is useful for assessing whether these constructs are sufficiently distinct from each other. Examining the diagonal elements,

the square root of the AVE for each construct (e.g., 0.88 for Attractiveness, 0.89 for Credibility) exceeds the corresponding correlations with other constructs. This outcome aligns with the Fornell-Larcker criterion, supporting discriminant validity. The higher diagonal values indicate that the variance captured by the items within each construct is greater than the shared variance with other constructs, signifying that the measures effectively represent distinct theoretical concepts (Melewar et al., 2017).

## 4.1.4 Nomological validity

Nomological validity assesses the extent to which the scores on a particular measure behave as predicted by theory. It examines whether a measure behaves in relation to other measures and constructs in a manner consistent with theoretically derived expectations. Certain model fit indices were computed to assess the validity criteria and to confirm the robustness of the study (Table 4.4).

**Table 4.4** Model fit analysis

Indices	Acceptable range	Results
Goodness-of-Fit Index (GFI)	> 0.95	0.967
Adjusted Goodness-of-Fit Index (AGFI)	> 0.95	0.961
Chi-Square (x <sup>2</sup> )	Low $x^2 (p > 0.05)$	3124.034
Relative Chi-Square (x²/df)	<5	2.317
Root Mean Square Residual (RMR) / Standardised Root Mean Square Residual (SRMR) (Byrne, 1994)	<0.08	0.056
Root Mean Square of Approximation (RMSEA) (Steiger, 2007)	< 0.07	0.027
Normed-Fit Index (NFI) (Hu and Bentler, 1999)	≥ 0.95	0.973

Comparative Fit Index (CFI) (Hu &	> 0.96	0.978
Bentler, 1999)		
Incremental Fit Index (IFI)	>0.90	0.943
Tucker Lewis index (TLI) or Non-	>0.95	0.978
Normed Fit Index (NNFI) (Schumacker		
& Lomax, 2004)		

Table 4.4 provides an overview of the model fit indices. These indices are critical for evaluating how well the specified model aligns with the observed data. The Goodness-of-Fit Index (GFI) and Adjusted Goodness-of-Fit Index (AGFI) both exceed the acceptable threshold of 0.95, with values of 0.967 and 0.961, respectively. These indices assess the proportion of variance in the observed covariance matrix explained by the model, suggesting a robust fit. The Chi-Square ( $\chi^2$ ) statistic, while reported as 3124.034, should ideally have a low value, and its significance level (p > 0.05) is not provided. Additionally, the Relative Chi-Square ( $\chi^2/df$ ) is within an acceptable range at 2.317, indicating a reasonable balance between model fit and complexity. The Root Mean Square Residual (RMR) and Standardized Root Mean Square Residual (SRMR) are reported as 0.056, below the threshold of 0.08, further supporting the adequacy of the model fit. The Root Mean Square of Approximation (RMSEA) stands at 0.027, comfortably below the recommended limit of 0.07, contributing to the overall evidence of good fit. The Normed-Fit Index (NFI) surpasses the recommended threshold of 0.95 with a value of 0.973. Similarly, the Comparative Fit Index (CFI) exceeds the acceptable level of 0.96, registering at 0.978. Both indices evaluate the relative improvement in fit compared to a baseline model. The Incremental Fit Index (IFI) is above the threshold of 0.90, with a value of 0.943, indicating an acceptable fit. The Tucker Lewis Index (TLI) or Non-Normed Fit Index (NNFI) stands at 0.978, surpassing the 0.95 benchmark.

#### 4.1.5 Configural invariance

Configural invariance assesses whether the basic structure or configuration of a latent variable model remains the same across different groups or conditions. It examines whether the same latent constructs are being measured in a consistent way across groups. For computing configural invariance, the basic structure of the measurement model is assumed to be the same across groups implying that the same latent variables are being measured, and the relationships between latent variables and their indicators are allowed to vary across groups. The measurement models are then measured separately for each group without imposing any equality constraints on the factor loadings or item intercepts (Table 4.5).

Table 4.5 Configural invariance measurement

Measurement metric	Moderation measurement (age)	Moderation measurement (gender)	Moderation measurement (ownership status)
x <sup>2</sup>	5113.257	5018.713	5297.867
df	1438	1438	1438
GFI	0.918	0.927	0.915
AGFI	0.909	0.921	0.907
CFI	0.961	0.955	0.974
IFI	0.983	0.922	0.971
NFI	0.816	0.883	0.867
RMR	0.065	0.066	0.064
RMSEA	0.043	0.043	0.043
TLI	0.938	0.985	0.971

#### 4.1.6 Metric invariance

Metric invariance refers to a level of invariance testing that involves constraining the factor loadings (coefficients that represent the strength of the relationship between latent variables and their indicators) to be equal across different

groups or conditions. Metric invariance assesses whether the same set of latent variables is being measured in a conceptually similar way across different groups or levels of variables. At the metric invariance level, the factor loadings for each indicator on the latent variable are constrained to be equal across groups. This means that the observed indicators contribute to the measurement of the latent variable in the same way across groups (Vandenberg and LVance, 2000). With metric invariance, the scores on the latent variable have the same meaning across groups. A one-unit change in the latent variable represents the same change in the observed indicators across groups. Metric invariance ensures that the relationships between the latent variable and other variables (both latent and observed) are comparable across groups.

**Table 4.6.** Metric invariance

Metric Invariance (Age Moderation)					
Unconstrained	4200.567	1200			
Fully Constrained	4276.525	1244			
Number of Groups		2			
Difference	75.958	44	0.001		
Metric Invariance (	Gender Moderation	1)			
Unconstrained	4215.789	1200			
Fully Constrained	4303.330	1241			
Number of Groups		2			
Difference	87.541	41	0.000		
Metric Invariance (	Ownership Status <b>N</b>	Moderation)			
Unconstrained	4221.011	1200			
Fully Constrained	4308.552	1241			
Number of Groups		2			
Difference	87.541	41	0.000		

## 4.1.7 Hypothesis testing

Hypothesis testing is used to make inferences from the research analysis. H1a suggests that when advertisements feature celebrities, consumers are expected to exhibit more positive cognitive responses compared to advertisements without celebrities. The cognitive attributes include aspects related to the consumer's mental processing and understanding of the advertisement, such as attention, awareness, perception, memory, and recall. The hypothesis posits a positive relationship, indicating that the presence of celebrities is hypothesized to enhance consumers' cognitive engagement with the advertisement. H1b suggests that advertisements featuring celebrities will elicit more positive affective responses compared to those without celebrities. Affective attributes include consumer attitudes toward the ad and the object (product or brand), as well as emotional responses such as brand love, celebrity love, and general consumer emotions.

The hypothesis implies that celebrity endorsements contribute to a more positive emotional and attitudinal connection with the advertised product or brand. H1c suggests that celebrity endorsements in advertisements will positively influence consumers' behavioral intentions and actions compared to advertisements without celebrities. Conative attributes include measures of consumer engagement, purchase intention, brand loyalty, celebrity loyalty, consumer advocacy, and recommendation. The hypothesis implies that celebrity endorsements contribute to stronger consumer commitment, loyalty, and advocacy, ultimately leading to favorable behavioral outcomes. Following Dwayne et al. (2012), a Mann-Whitney U test was conducted to ensure the relevance of the results. Table 4.7 provides Mann-Whitney U test results which supports the distribution of factors and exploration of non-response bias test in the study. The test was applied to compare the distribution of the key variable of interest between respondents and non-respondents. The findings indicate absence of potential non-response bias in the dataset.

Table 4.7 Mann-Whitney U test

	Attractiveness	Credibility	Celebrity Product Congruency	Cognitive Attributes	Affective Attributes	Conative Attributes
Mann-Whitney U Test	25489.000	27611.555	23874.555	30218.000	29987.000	24217.555
Wilcoxon W	62127.000	61382.555	63172.555	68817.000	72861.000	67590.555
Z	-0.768	-0.954	-1.221	-0.601	-0.720	-1.087
Asymp. Sig. (2-tailed)	0.053	0.057	0.052	0.062	0.047	0.058

The Common Method Bias (CMB) test was applied to assess and mitigate the potential impact of systematic measurement errors introduced by using the same method for collecting data on both predictor and criterion variables in the study. Common method bias is a significant concern in research, as it can lead to inflated relationships among variables, potentially distorting the accuracy and validity of study findings. Harman's one-factor test was applied to assess CMB. Harman's test is a diagnostic method employed during data analysis to examine whether a single underlying factor (method factor) dominates the variance in the data. It indicates that if common method bias is a significant issue, a single factor (the method factor) would account for a substantial portion of the variance in the data (Table 4.8). This is because responses across different variables would be influenced more by the measurement method than by the actual constructs being measured.

Table 4.8 Common method bias test

Model	χ2	Difference	p-value
Unconstrained	5432.189	1243	
Constrained	6689.398	1278	
Difference	1257.209	35	0.000

Table 4.9 presents the results of hypothesis testing for H1a, H1b, and H1c. These hypotheses pertain to the effects of celebrity endorsements on different dimensions of consumer preferences in the footwear industry (cognitive attributes, affective attributes and conative attributes).

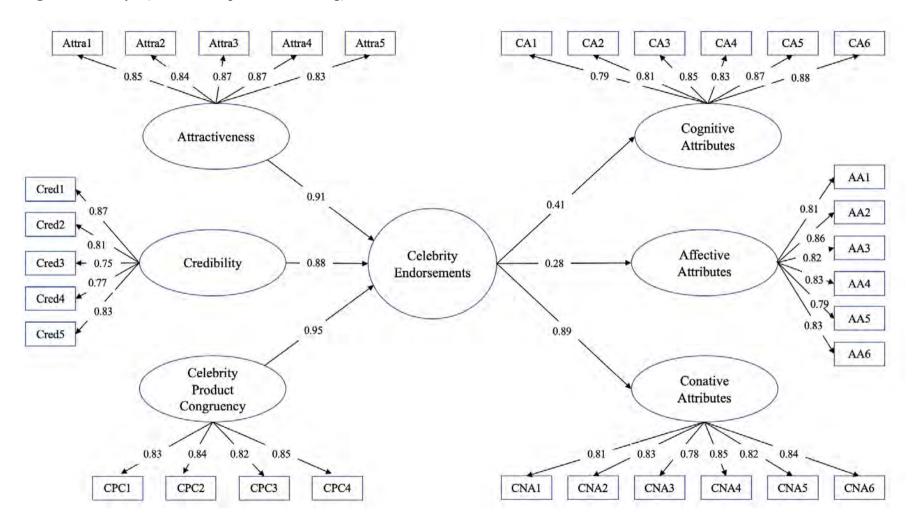
Table 4.9 Hypothesis test results for H1a, H1b and H1c

Н	Coefficient value	SE	CR	р	Result
H1a	0.37	0.132	-7.727	0.47	Not supported
H1b	0.28	0.087	-9.357	0.21	Not supported
H1c	0.89	0.104	9.091	***	Supported

- H1a suggests a significant negative influence of celebrity endorsements on cognitive attributes of consumer preferences;
- H1b indicates a significant negative influence on affective attributes of consumer preferences;
- H1c demonstrates a significant positive influence of celebrity endorsements on conative attributes of consumer preferences.

Figure 4.1 visually represents the Structural Equation Modeling (SEM) results obtained from the analysis. The SEM diagram illustrates the relationships among the variables specified in the model, offering a graphical representation of the hypothesized connections and the associated path coefficients. This visual depiction serves as a tool for understanding the structural dynamics and statistical significance of the various pathways within the conceptual framework. By examining the arrows and coefficients in (Figure 4.1), research insights can be gained about the direction and strength of the relationships between latent constructs, providing an overview of the study's findings.

Figure 4.1 Study1 (Structural equation modelling) results



For assessing the role of moderating variables, 'split-group' method was adopted following Leonidou et al. (2013). The split-group method involves dividing the overall study sample into distinct subgroups based on a moderating variable. It aims to explore whether the relationship between the independent and dependent variables differs significantly across these subgroups. The process typically unfolds by first identifying the moderating variable, a factor expected to influence the strength or direction of the relationship under investigation. Subsequently, the sample is divided into subsets, each representing a unique level or category of the moderating variable. Separate analyses are then conducted for each subgroup to examine the relationship within each category. By comparing the results across subgroups, it can be assessed whether the moderating variable has a substantial impact on the observed relationship.

To assess the moderating influence of consumer age (H2a, H2b, H2c), the dataset underwent a median-split at the median age of 29 years, creating two distinct categories: young age consumers and old age consumers. The resulting subgroups were examined to gauge variations in the impact of celebrity endorsements on cognitive, affective, and conative attributes. For H3a, H3b, and H3c, scrutinizing the moderating effect of consumer gender, the dataset was divided into male and female consumer groups, comprising 578 and 705 individuals, respectively. Employing a dual model approach, both constrained and free models were assessed, and the significance of gender as a moderator was evaluated through the  $\chi 2$  difference test, highlighting notable distinctions between the models. To explore the moderating impact of information about the ownership status of the endorsed product (H4a, H4b, H4c), two distinct data groups were meticulously formed (Table 4.10). The first group comprised participants informed about the ownership status of the endorsed product, while the second group remained uninformed about this aspect. This division facilitated an in-depth examination of how awareness of ownership status influences the effects of celebrity endorsements on various constructs. The systematic application of the "split-group" method allowed for a nuanced exploration of moderation effects within the study and ensured examination of diverse consumer characteristics and their influence on the endorsed product's perceived attributes.

Table 4.10 Moderation hypothesis test results

Н	Degrees of freedom (df)	Chi-square Minimum (CMIN)	p-value	Result
H2a	2	6.123	0.041	Supported
Н2ь	2	5.765	0.632	Not Supp.
H2c	2	4.289	0.589	Not Supp.
НЗа	2	3.724	0.201	Not Supp.
НЗЬ	4	11.237	0.156	Not Supp.
НЗс	2	1.942	0.024	Supported
H4a	2	3.724	0.029	Supported
Н4ь	4	11.237	0.012	Supported
Н4с	2	5.765	0.005	Supported

The hypotheses (H2, H3, and H4) are framed to evaluate the strength of the influence of celebrity endorsements on consumer preferences concerning age, gender, and ownership status of the endorsed product. H2 explores age-based variations, segmenting consumers into young and old age groups. The results indicate that the impact of celebrity endorsements on cognitive attributes (H2a) is statistically stronger among young consumers compared to their older counterparts (CMIN=6.123, p=0.041), supporting H2a. However, H2b and H2c, exploring the influence on affective and conative attributes, respectively, are not supported, suggesting no significant age-based disparities in these dimensions. H3 examines gender-based distinctions, the findings suggests that the influence of celebrity endorsements on cognitive attributes (H3a) and affective attributes (H3b) is statistically insignificant. However, influence of celebrity endorsements on conative attributes (H3c) is significantly stronger among

female consumers. H4 investigates the moderating role of ownership status, differentiating between celebrity-owned and company-owned brands. The results consistently support H4a, H4b, and H4c, signifying that the impact of celebrity endorsements on cognitive, affective, and conative attributes is notably stronger when associated with celebrity-owned brands.

## 4.2 Study2 (Eye tracking analysis) results

Study2 (Eye tracking analysis) performs laboratory study with 45 participants aged 18 to 30 representing the target demographic for the footwear industry. The participants underwent a pre-experiment screening to ensure eligibility and the absence of any neurological or psychological conditions that could influence the study's outcomes. During the experiment, participants were exposed to carefully selected celebrity-endorsed footwear advertisements, and their eye movements were tracked using webcam-based eye tracking technology. This phase aimed to capture attention patterns and visual engagement in real-time. The quantitative data obtained from eye tracking was subjected to statistical analysis. The average viewing duration was 23.87s (SD=11.62).

Heat maps were employed to visually represent the cumulative gaze patterns under two conditions, celebrity endorsement and non-celebrity endorsement. For celebrity endorsement group, the focus (primary) was on the face of the celebrity, focus (secondary) was on brand name, tag line and product. For non-celebrity group, focal point was retained on the brand name, tagline and product region. Figure 4.2 provides the heat map results for participants who were exposed to advertisements by Virat Kohli, Anushka Sharma and Kartik Aryan. The advertisement shows Anushka Sharma endorsing Puma brand and Kartik Aryan endorsing Bata brand. Virat Kohli is seen to be endorsing his own brand Wrogn. The results show interesting insights about participants gaze patterns and their cognitive, affective and conative interests shaping the overall consumer preferences towards the products.

Figure 4.2 Study2 (Eye tracking analysis) heat map results



Areas of interest (AOIs) (Townsend and Kahn, 2014), were identified within the ads. The celebrity endorsement group had 4 AIOs with celebrity face, brand name, tag line (if applicable) and the product. Non-celebrity group had 3 AIOs with brand name, tag line (if applicable) and the product. The exploration of time spent and fixation counts within these AOIs provided insights into the specific elements capturing participants' attention during the viewing experience. Table 4.11 provide the results for the Study2 (Eye tracking analysis). Time spent refers to the total duration a participant's gaze remains fixed on a particular area or element of interest within the visual stimulus. Time spent refers to the total duration a participant's gaze remains fixed on a particular area or element of interest within the visual stimulus. Fixation counts represent the number of times a participant's gaze stops and focuses on a particular area or element within the visual stimulus. Higher fixation counts indicate frequent and repeated attention to a specific element. This repetition suggests that the participant finds the content in that area compelling or relevant.

Table 4.11 Study2 (Eye tracking analysis) results

	Total visit duration (s)	Total visit duration (%)	Time to first fixation (s)	Fixation count	Fixations before in counts
Celebrity - face	0.65 (0.20)	3.20% (1.00%)	2.25 (2.00)	1.95 (0.55)	7.50 (6.00)
Celebrity - full person	2.35 (0.45)	11.60% (1.90%)	1.65 (1.60)	10.00 (1.80)	3.00 (2.80)
Tagline					
Celebrity	1.12 (0.30)	4.25% (1.10%)	3.75 (1.50)	4.40 (0.95)	11.50 (4.40)
Non-celebrity	0.72 (0.25)	4.80% (1.60%)	6.80 (3.00)	3.10 (0.90)	17.20 (7.50)
Brand name					
Celebrity	0.62 (0.18)	2.42% (0.61%)	8.92 (1.20)	3.45 (0.85)	25.08 (3.60)
Non-celebrity	1.92 (1.05)	6.20% (2.10%)	8.10 (1.35)	4.20 (1.10)	21.30 (3.20)
Product					
Celebrity	1.68 (0.40)	8.30% (1.80%)	4.52 (1.10)	6.20 (1.20)	10.78 (2.00)
Non-celebrity	2.20 (0.60)	9.50% (2.00%)	4.18 (1.00)	7.80 (2.10)	10.02 (2.30)

The table presents eye-tracking data that examines participants' engagement with specific elements in footwear advertisements featuring both celebrity and non-celebrity endorsements (without celebrity endorsers). The metrics presented for each element examine the aspects of participants' attention allocation and consumer interests in natural setting alleviating environmental bias. The total visit duration, expressed both in seconds and as a percentage of the overall viewing time, serves as a metric in evaluating the depth of participants' engagement with specific elements. This quantitative measure unveils the extent to which participants dedicated their attention

to each element, providing insights into the varying degrees of visual absorption. The time to the first fixation explains the immediacy with which participants directed their attention to a particular area. This metric gauges the rapidity of participants response and reflects the initial attraction or focal point within the advertisement. Fixation counts suggests the frequency with which participants maintained their gaze on a specific region, offering a measure of sustained attention. Fixations before in counts explain the antecedent fixations leading to attention on a particular area, providing a nuanced perspective on the sequential progression of participants' visual exploration. Figure 4.3, Figure 4.4 and Figure 4.5 provides eye-tracking results for evaluating the influence of celebrity endorsements upon consumer preferences. It provides the visual engagement results for three celebrities including Salman Khan, Malaika Arora Khan and Samantha Ruth Prabhu. These celebrities were selected on the basis of pre-test and detailed discussion with the focus groups.

**Figure 4.3** Study2 (Eye tracking analysis) results for measuring the influence of celebrity endorsements (1)





Figure 4.4 Study2 results for measuring the influence of celebrity endorsements (2)



Figure 4.5 Study2 results for measuring the influence of celebrity endorsements (3)



Participants spent an average of 0.65 seconds fixating on the celebrity's face, accounting for 3.20% of the total viewing time. The initial fixation occurred at approximately 2.25 seconds. On average, there were 1.95 fixations on the celebrity's face. Participants made an average of 7.50 fixations before focusing on this area. Participants spent 2.35 seconds viewing the entire celebrity, representing 11.60% of the total viewing time. The first fixation occurred within 1.65 seconds. On average, there

were 10.00 fixations on the full celebrity. Participants made an average of 3.00 fixations before directing attention to the full person. The average duration of viewing the celebrity's tagline was 1.12 seconds (4.25% of total viewing time). The first fixation occurred at around 3.75 seconds. There were 4.40 fixations on the tagline. Participants made an average of 11.50 fixations before focusing on this area. Participants spent 0.72 seconds viewing the non-celebrity advertisement's tagline, representing 4.80% of total viewing time. The first fixation occurred at approximately 6.80 seconds. There were 3.10 fixations on the non-celebrity's tagline. Participants made an average of 17.20 fixations before directing attention to this area. Hypothesis testing results with ANOVA for H1a did not yield a statistically significant effect for cognitive attributes (F = 1.78, df=2, 120, p=0.176,  $\eta^2$ =0.03). Post-hoc testing using the Least Significant Difference (LSD) suggested mean differences (MD = 4.23, SE = 3.12, p = 0.187, d = 0.41) were not statistically significant.

These findings challenge the notion that celebrity endorsements significantly enhance cognitive attributes in terms of attention and awareness. ANOVA testing for H1b suggested marginal overall effect (F = 2.34, df = 2, 120, p = 0.100,  $\eta^2$  = 0.04), indicating subtle differences in consumer attitudes, brand love, celebrity love, and emotions between the celebrity and non-celebrity endorsed advertisements. Post-hoc analyses using LSD did not reveal any statistically significant mean differences for affective attributes, with p-values greater than the conventional threshold of 0.05. ANOVA analysis for H1c produced a statistically significant effect (F = 7.12, df = 2, 120, p < 0.001,  $\eta^2$  = 0.11). Post-hoc testing using LSD revealed substantial mean differences, particularly for purchase intention (MD = 9.81, SE = 3.58, p = 0.007, d = 1.32) and consumer advocacy (MD = 7.92, SE = 2.85, p = 0.015, d = 1.11). This substantiates the hypothesis that celebrity endorsements exert a notable influence on consumer engagement, purchase intention, brand loyalty, celebrity loyalty, consumer advocacy, and recommendation. For testing moderation hypothesis, baseline regression was conducted to examine the effect of age (H2), gender (H3) and ownership status (H4) on the influence of celebrity endorsements on consumer preferences. The purpose was to accurately measure the segregated influence of moderators upon cognitive,

affective and conative attributes. Total visit duration, representing consumer preferences towards celebrity featured advertisement, was found to have a positive effect ( $R^2 = 0.418$ , b = 0.073, p = .05, r = 0.59). The more the consumers viewed the celebrity endorsements, higher was their average viewing duration towards the advertisement. In the analysis of direct effects, the results indicate for H1a (b celeb = 0.12, p = .68, LLCI = -0.78, ULCI = 0.53) for H1b (b celeb = 0.05, p = .82, LLCI = -0.55, ULCI = 0.45) and significance for H1c (b celeb = 0.25, p = .02, LLCI = 0.03, ULCI = 0.47). In the analysis of indirect effects, H2a was supported, indicating a significant positive effect of moderation by age upon the influence of celebrity endorsement on cognitive attributes (b = 0.31, p = 0.03, LLCI = 0.12, ULCI = 0.59). H2b (b = 0.28, p = 0.48, LLCI = -0.52, ULCI = 1.09) and H2c (b = 0.39, p = 0.55, LLCI = -0.44, ULCI = 1.18) were rejected. For H3a (b = -0.19, LLCI = -0.50, ULCI = 0.03, p = 0.31) and H3b (b = -0.24, LLCI = -0.64, ULCI = 0.04, p = 0.29), the results show that there are no significant indirect effects. However, H3c was accepted, indicating a significant positive effect (b = 0.46, LLCI = 0.21, ULCI = 0.77). H4a (b = 0.62, LLCI = 0.05, ULCI = 0.26, p < 0.01), H4b (b = 0.28, LLCI = 0.03, ULCI = 0.32, p < 0.01), and H4c (b = 0.12, LLCI = 0.03, ULCI = 0.29, p < 0.01) are accepted.

#### **CHAPTER 5**

# FINDINGS, IMPLICATIONS AND CONCLUSION

The fifth chapter of this research study presents examination of the findings derived data analysis. This chapter discusses key outcomes, implications, relevance and research limitations.

# 5.1 Major findings

This study aimed to understand the complex dynamics between celebrity endorsements and consumer preferences across cognitive, affective, and conative attributes. Undertaking mixed methods approach involving both experimental designs and neuroscientific analysis, the study obtained insights about the interplay of factors shaping consumer behavior in footwear industry. The following sections explain the major findings of the study along with theoretical and managerial implications.

# 5.1.1 Findings related with studying the "relationship of celebrity endorsements in footwear industry with consumer preferences"

Objective 1 of the research aimed to study the relationship between celebrity endorsements in the footwear industry and consumer preferences across cognitive, affective, and conative attributes. H1a posited that advertisements featuring endorsements by celebrities have a beneficial impact on cognitive attributes when compared to advertisements that do not feature celebrity endorsements. Several cognitive attributes assessed included consumer attention, consumer awareness, consumer perception, consumer memory, and consumer recall. The proposition was that celebrity endorsed advertisements are more effective at capturing and maintaining the attention of consumers. The presence of a celebrity tends to attract viewers and potential consumers to the advertisement. Further, the presence of a celebrity endorsement contributes to heightened consumer awareness, fostering increased recognition and recall of the advertised product or brand. The influence extends to

consumer perception, with celebrities enhancing the perceived credibility and attractiveness of the endorsed items. Such endorsements enhance consumer memory, making the content of these advertisements more memorable for viewers. The positive effects extend to consumer recall, whereby individuals are more likely to retrieve information about the product or brand when prompted, particularly in comparison to advertisements without celebrity endorsements. H1a (celebrity-endorsed advertisements have a positive impact on cognitive attributes compared to non-celebrity endorsed advertisements) was rejected. The research did not find significant evidence supporting the idea that celebrity endorsements lead to superior outcomes in these cognitive domains.

H1b suggested that celebrity endorsements engender a more favorable impact on affective dimensions, including consumer attitude towards the ad, consumer attitude towards the object, brand love, celebrity love, and consumer emotions. The hypothesis was developed on the theorem that celebrity endorsements have been a time-tested strategy, predicated on the belief that leveraging the popularity and appeal of a wellknown figure can effectively sway consumer sentiments. Managers tend to develop the emotional connect of the advertisement to affect the emotions of the consumers and to influence the consumer attitudes towards the advertisement which serve as a barometer for measuring the success of an advertising campaign. This included the emotional response elicited by the ad and the overall assessment of its effectiveness. The hypothesis suggests that, when compared to their non-celebrity counterparts, advertisements featuring celebrities generate positive reception among consumers, contributing to a favorable attitude towards the ad itself. The influence extended beyond the immediate ad to encompass the consumer's attitude towards the promoted object. Celebrity endorsements are presumed to create a halo effect, where the positive associations consumers have with the celebrity extend to the endorsed product or service. H1b posits that this transference of positive sentiment is more pronounced in celebrity-endorsed advertisements than in those without celebrity involvement. The hypothesis suggests that celebrities, with their established fan bases and charisma, have the potential to enhance consumer affection towards the endorsed brand. Celebrity love

pertains to the emotional connection consumers may develop with the celebrity themselves through the endorsement, contributing to an elevated sense of fondness and admiration. Consumer emotions were further expected to be more positively influenced by celebrity endorsements suggesting that the emotional resonance created by celebrities can evoke a stronger and more positive emotional response in consumers, amplifying the overall affective impact of the advertisement. Considering the results of Study1 (Structural equation modelling) and Study2 (Eye tracking analysis), H1b was rejected implying that celebrity endorsements in footwear industry do not evoke significant positive impact upon the affective attributes of consumer preferences.

H1c suggested that advertisements featuring celebrities exert a beneficial impact on certain behavioral or conative aspects compared to advertisements without celebrity endorsements. Celebrity endorsements are believed to enhance consumer engagement, implying that the involvement and interest of consumers in the advertisement or brand are heightened when a well-known figure is associated with the product or service. The statement suggests that celebrity endorsements positively influence consumers' intentions to make a purchase. This could be attributed to the perceived credibility and attractiveness of the celebrity, potentially motivating consumers to consider or prefer the endorsed product. Celebrity endorsements are thought to contribute to stronger brand loyalty, indicating that consumers may develop a more enduring and committed relationship with the brand when it is associated with a celebrity. The idea is that the positive associations consumers have with the celebrity transfer to the brand itself. This conative attribute pertains to the allegiance and loyalty consumers may develop towards the celebrity endorser as a result of their association with a particular brand. The positive impact of the celebrity on consumer perceptions could translate into increased loyalty towards the celebrity. Celebrity endorsements positively influence consumers to become advocates for the brand. Consumers who are advocates actively support and promote the brand, potentially through word-of-mouth recommendations or social media endorsements. Celebrity endorsements are expected to lead to a higher likelihood of consumers recommending the endorsed product or brand to others. Positive associations with the celebrity may prompt consumers to share their positive

experiences and endorse the product to their social circles. The research findings of Study1 (Structural equation modelling) and Study2 (Eye tracking analysis) indicate statistically significant positive impact of celebrity endorsements on conative attributes accepting H1c. Consumer engagement, consumer interest and involvement, was elevated in advertisements featuring celebrities. The research suggested a significant increase in purchase intention among consumers exposed to celebrity-endorsed advertisements. The association with a well-known figure contributed to a more favorable predisposition towards making a purchase, reflecting the persuasive influence of celebrities on consumers' buying decisions.

# 5.1.2 Findings related with studying "the moderation effect of demographic variables (age and gender)"

Objective 2 examines the interplay between demographic variables (age and gender) and their potential moderating influence on the relationship between celebrity endorsements in the footwear industry and consumer behavior. In research, moderation analysis explores how the strength or direction of a relationship between two variables may be contingent on the levels of a third variable, in this case, age and gender. Celebrity endorsements are often employed as a strategic marketing tool to influence consumer perceptions and behaviors. Consumer behavior includes broad spectrum of actions and decisions made by individuals when purchasing and using products. Age often signifies different life stages and preferences, while gender can influence consumer choices and responses. The research seeks to understand how these demographic factors might moderate or influence the relationship between celebrity endorsements and consumer behavior. This involves exploring potential differences in the strength or nature of the relationship. H2 focused upon the influence of celebrity endorsements, asserting that their influence on cognitive, affective, and conative attributes will have a varying degree of strength across different age groups. It postulates that celebrity endorsements will be more pronounced among younger consumers in comparison to their older counterparts.

H2a postulated more significant influence of celebrity endorsements among younger consumers implying that that the cognitive aspects such as awareness, recall, and comprehension influenced by celebrity endorsements, are expected to be more in younger age consumers. The research findings demonstrated a statistically significant effect of celebrity endorsements on cognitive attributes with a higher impact observed among younger consumers compared to their older counterparts. Study1 and Study2 provided empirical support for higher cognitive impact of celebrity endorsements within the demographic of younger age groups. It implies that marketers and advertisers targeting younger audiences can utilize celebrity endorsements as a tool for enhancing cognitive engagement and awareness. H2b postulated that the affective attributes including emotional impact and positive attitudes through celebrity endorsements will be more significant among younger consumers. This suggests that celebrities are likely to exercise higher influence on younger demographic segments. The data analysis from Study1 and Study2 did not reveal a statistically significant difference in the impact of celebrity endorsements on affective attributes between younger and older consumers. The emotional resonance and positive attitudes anticipated to be more pronounced in the younger age group were not supported by the empirical evidence. These results suggest that the strength of influence exerted by celebrity endorsements on affective attributes does not exhibit a discernible age-related pattern. While celebrities may indeed play a role in shaping emotional responses and attitudes, this impact does not seem to vary significantly between younger and older consumer demographics. The rejection of H2b underscores the nuanced nature of the relationship between celebrity endorsements and affective attributes, emphasizing the need for a more detailed understanding of the factors that contribute to the effectiveness of celebrity endorsements across different age groups. This insight contributes to the evolving landscape of marketing strategies, prompting a re-evaluation of assumptions regarding age differentials in the influence of celebrities on consumer attitudes. H2c hypothesized that the motivational and behavioral impact of celebrity endorsements will be stronger among the younger age group. This included purchase intentions, brand loyalty, and consumer advocacy, suggesting that younger consumers are more prone to exhibit proactive behaviors influenced by celebrity endorsements. H2c suggests that the endorsement of a product or service by a celebrity will be a stronger motivator for the

younger demographic to consider making a purchase. The hypothesis posits that the allure and influence of celebrities play a more substantial role in shaping the intentions of younger consumers, prompting them to be more receptive to the endorsed products. H2c anticipates that younger consumers, influenced by celebrity endorsements, will exhibit a stronger inclination to develop enduring and committed relationships with the endorsed brands. The hypothesis suggests that the positive associations with celebrities contribute to a heightened sense of loyalty among younger consumers, fostering a deeper connection with the endorsed brand. Study1 and Study2 did not reveal a statistically significant difference in the motivational and behavioral impact of celebrity endorsements between the younger and older age groups. The expected heightened influence on younger consumers, including increased purchase intentions, brand loyalty, and consumer advocacy, did not manifest in a statistically significant manner. The rejection of H2c emphasizes the complexity of the relationship between celebrity endorsements and consumer behaviors across different age groups, prompting a reevaluation of assumptions regarding age-related differentials in the effectiveness of celebrity endorsements. While the rejection of H2c does not negate the overall influence of celebrity endorsements on consumer behaviors, it does highlight the need for a more nuanced understanding of the factors that contribute to the variability in the impact of celebrity endorsements across diverse demographic segments.

H3 suggests that the influence of celebrity endorsements will be more pronounced among female consumers when compared to their male counterparts. H3a suggests that the cognitive impact, involving processes such as awareness, recall, and comprehension, will be stronger among female consumers exposed to celebrity endorsements implying that female consumers are anticipated to exhibit a stronger cognitive response, such as increased brand awareness or better recall, in the presence of celebrity-endorsed advertisements compared to male consumers. The data did not reveal a statistically significant difference in the cognitive impact of celebrity endorsements between female and male consumers. The anticipated heightened cognitive response, including increased awareness, recall, and comprehension among female consumers, did not manifest in a statistically significant manner. The rejection

of H3a provides the complexity of the relationship between gender and the cognitive impact of celebrity endorsements. It suggests that the presumed stronger influence of celebrity endorsements on cognitive attributes does not exhibit a gender-related pattern. H3b evaluates affective attributes which pertain to emotional responses and attitudes, H3b posits that the emotional impact of celebrity endorsements will be more significant among female consumers. This suggests that female consumers are expected to develop stronger emotional connections and more positive attitudes towards products or brands endorsed by celebrities, as compared to their male counterparts. The data did not reveal a statistically significant difference in the affective impact of celebrity endorsements between female and male consumers. The anticipated stronger emotional connections and more positive attitudes towards products or brands endorsed by celebrities among female consumers did not manifest in a statistically significant manner. While celebrities may indeed play a role in shaping emotional responses and attitudes, this impact did not show a statistically significant variation between female and male consumers. H3c extends to conative attributes, involving behavioral intentions and actions. The hypothesis anticipates that the motivational and behavioral impact of celebrity endorsements, including purchase intentions, brand loyalty, and consumer advocacy, will be stronger among female consumers implying that female consumers are more likely to exhibit proactive behaviors influenced by celebrity endorsements compared to their male counterparts. The findings reveal a statistically significant difference in the motivational and behavioral impact of celebrity endorsements between female and male consumers. The anticipated outcome of H3c, which posited that female consumers would demonstrate a more pronounced influence in terms of purchase intentions, brand loyalty, and consumer advocacy in response to celebrity endorsements, aligns with the empirical evidence. These results suggest that female consumers exhibit a heightened propensity for proactive behaviors influenced by celebrity endorsements when compared to their male counterparts. The acceptance of H3c supports the importance of considering gender-specific dynamics suggesting that the impact on consumer motivation and behavior may indeed vary based on gender. This outcome holds implications for marketers seeking to tailor their strategies to different demographic segments, recognizing that the motivational and behavioral impact of celebrity endorsements may have a more substantial effect on female

consumers. The acceptance of H3c emphasizes the significance of understanding gender-based nuances in consumer responses to celebrity endorsements.

## 5.1.3 Findings related with studying "the moderation effect of ownership status"

Objective 3 of this research endeavors to explore the dynamics surrounding celebrity endorsements within the footwear industry by focusing on the moderation effect of ownership status on the relationship with consumer behavior. Celebrity endorsements have become a prominent marketing strategy, and understanding how ownership status (whether a product is owned by the endorsing celebrity or a third party) moderates this relationship holds significant implications. The investigation seeks to understand whether the awareness about the ownership status of the brand acts as a factor shaping consumer responses to celebrity-endorsed footwear products or not. By examining how ownership influences consumer behavior, including attitudes, purchase intentions, and loyalty, the objective aims to evaluate patterns that may assist in interpreting the varying impact of celebrity endorsements based on ownership status.

H4 examines the impact of awareness about the ownership status of brands in celebrity endorsements, positing that the impact on cognitive, affective, and conative attributes will be more pronounced when the endorsed brand is owned by the celebrity themselves, as opposed to being owned by a separate company. H4a suggests that the cognitive impact of celebrity endorsements, such as awareness, recall, and comprehension, will be stronger when the endorsed brand is owned by the celebrity. This implies that consumers are anticipated to have a more heightened cognitive response, such as increased brand awareness or better recall, when the celebrity owns the endorsed brand. The findings suggest a statistically significant difference in the cognitive impact of celebrity endorsements based on ownership status. Consumers demonstrated a more heightened cognitive response, including increased brand awareness and recall, when the celebrity owned the endorsed brand. This outcome aligns with the expectations outlined in H4a, supporting the notion that the cognitive attributes influenced by celebrity endorsements exhibit a stronger effect when the

celebrity has a direct ownership stake in the endorsed brand. H4a acceptance provides the importance of considering ownership dynamics celebrity endorsements and their impact on consumer cognitive responses. The outcomes contribute insights to marketers, indicating that the presence of celebrity ownership can indeed enhance the cognitive aspects of consumer perceptions, potentially influencing brand recall and awareness. H4b posited that the affective attributes containing the emotional impact of celebrity endorsements will be more significant when the brand is owned by the celebrity. This suggests that consumers are expected to develop stronger emotional connections and more positive attitudes towards products or brands endorsed by celebrities when those brands are owned by the celebrities themselves. The findings indicate a statistically significant difference in the emotional impact of celebrity endorsements on affective attributes based on ownership status. Consumers exhibited a stronger emotional connection and developed more positive attitudes towards products or brands endorsed by celebrities when those brands were owned by the celebrities themselves. Acceptance of H4b provides that nuanced dynamics are at play in the working of celebrity endorsements, emphasizing that the emotional resonance and positive attitudes forged through such endorsements are heightened when the celebrity has a direct ownership stake in the endorsed brand. The results provide insights for marketers and researchers alike, highlighting the distinctive influence that celebrity ownership can have on affective attributes in the context of endorsements. H4c anticipates that the influence of celebrity endorsements on conative attributes including purchase intentions, brand loyalty, and consumer advocacy will be stronger when the brand is owned by the celebrity. This implies that consumers are more likely to exhibit proactive behaviors influenced by celebrity endorsements when the celebrity owns the endorsed brand. The findings from the research indicate a statistically significant difference in the impact of celebrity endorsements on conative attributes based on ownership status. In alignment with the expectations outlined in H4c, the data suggests that the motivational and behavioral influence of celebrity endorsements is more pronounced when the celebrity has direct ownership of the endorsed brand. This acceptance implies that consumers are more likely to exhibit proactive behaviors, such as heightened purchase intentions, increased brand loyalty, and greater advocacy, when the celebrity endorser has a direct stake in the ownership of the brand. The results

provide the unique and amplified impact of celebrity endorsements on consumer actions when the celebrity is not just a spokesperson but also a proprietor of the endorsed brand.

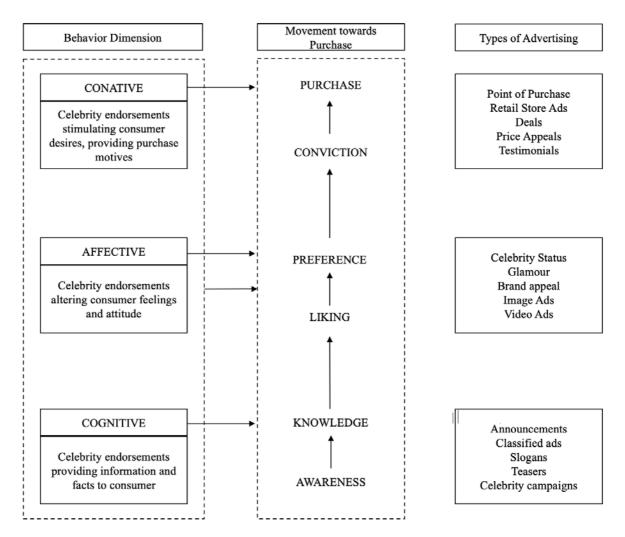
# 5.2 Theoretical implications

Advertising effectiveness model (Lavidge and Steiner, 1961) suggested that advertising efforts go through a series of stages, leading to the formation of a favorable consumer response. The model indicated movement of consumers from cognitive (awareness) to affective (interest and attitude) to conative (desire, action and advocacy) as they come in contact with an advertisement. Grewal et al., (1997) highlighted the relevance of this cognitive-affective-conative model for conducting meta-analysis of research studies around celebrity endorsements to have a complete understanding of the working of celebrity endorsements. However, research studies have been limited in conducting a comprehensive analysis by covering multiple factors. Bergkvist and Zhou (2016) supported this view by suggesting that research studies tend to evaluate the effectiveness of celebrity endorsements by evaluating its impact around certain specific elements of the model such as purchase intention and brand loyalty. As developed by Study1 (Structural equation modelling) contrary to a linear movement from cognitive to affective to conative, consumer psychology works in conjunction with all the three attributes simultaneously.

Study2 (Eye tracking analysis) indicates that celebrity endorsements influence consumer psychology in a cohesive manner where celebrity endorsements possess the potential to ignite neural responses higher as compared to a non-celebrity endorsement bringing higher consumer attention and interests in the advertisements. This finding is in consonance with Knoll and Matthes (2017). Figure 5.1 improves the advertising effectiveness model by incorporating the simultaneous functioning of cognitive, affective and conative attributes in shaping consumer preferences about liking or disliking the advertisement and purchasing or not purchasing the brand. This suggests

that when consumers come in contact with celebrity endorsements, the neural responses fire to develop consumer preferences, wherein neural components (cognitive, affective and conative) shapes consumer's behavioral intention individually and jointly. A major implication of this finding is that research studies should now aim to cover celebrity endorsements from a broader perspective including the impact on consumer neuroscience for better analysis and development of useful results.

Figure 5.1 Improved advertising effectiveness model



Petty et al. (1983), considered that celebrity preferences induce higher consumer attention and corresponding consumer interests about the sponsored product. It was suggested that since consumers pay greater attention to the celebrity, they produce higher product recall rates for the products endorsed by the celebrity. However, Study1 suggested the insignificant impact on cognitive attributes and Study2 reported

increased visual engagement towards celebrities highlighting that in today's business environment, cognitive preference for the celebrity seems not to be translating into cognitive preference for the underlying product. The incongruent dynamics between cognitive preferences for celebrities and the associated products do not preclude observable short-term spikes in sales. This surge may be elucidated by the significant positive influence of celebrity endorsements on conative attributes.

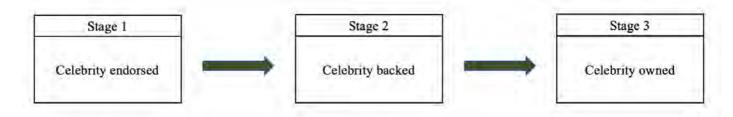
Miller and Allen (2012) proposed that the influence of celebrities extends to shaping consumers' beliefs regarding various facets of the endorsed object. Young and Miller (2015) supported the view that the consumer's perception about the product is shaped by the consumer's opinion about the celebrity. McCracken (1989) opined that celebrity features gets transferred to the product and becomes imbued with the purchaser's identity. However, the insignificant impact of celebrity endorsements on cognitive and affective attributes while having a significant positive impact upon conative attributes along with diminishing visual engagement rates over a frequency of celebrity endorsements indicates that consumers are becoming product driven over celebrity fancy driven. De Houwer (2009) propositional learning model provides a psychological argument supporting this view. The model suggests that consumers, through past experiences and learned associations, form propositions about similar events in the present. Consumers may have learned through frequently repeated exposures that the correlation between celebrities and product attributes is not as robust as initially perceived. Repeated exposures to celebrity endorsements might have acted as a kind of experiential feedback loop for consumers. In the initial phases, the allure of celebrities might have played a role in capturing attention and shaping early perceptions. However, as consumers encountered these endorsements repeatedly, the initial halo effect, where positive qualities associated with the celebrity influenced perceptions of the product, might have gradually given way to a more discerning assessment. Consumers, exposed to a multitude of celebrity endorsements, adapt their cognitive frameworks to discern subtleties in the alignment between the endorser and the endorsed product. This cognitive flexibility allows consumers to form more informed and nuanced perspectives, steering away from a blanket acceptance of the

perceived correlation between celebrities and product attributes. This learned awareness is similar to a cognitive recalibration, where the initial excitement surrounding a celebrity's association with a product transform into a more critical evaluation of the substantive connection between the two. Neuroscientific investigation indicates that product factors such as the type of footwear, overall quality, the composition and characteristics of the sole, including considerations like sole height and width, as well as specific attributes like strength, ankle comfort, suitability for running or walking, and even specialized features like being designated as doctor shoes or catering to specific activities like sprinting, impact of footwear on aspects such as knee and toe health play roles in shaping consumer preferences. As consumers increasingly prioritize product-driven considerations, the theoretical implication lies in understanding the mechanisms through which product attributes are communicated and accentuated in endorsement campaigns. Exploring how celebrities effectively convey the qualities and features of footwear in their endorsements, and how these presentations align with consumer expectations and preferences, would contribute significantly to advancing our theoretical understanding of the intricate interplay between celebrity endorsements and consumer choices.

The identification of age as a significant moderator to cognitive attributes introduces a nuanced dimension to our theoretical understanding of how different age groups respond to celebrity endorsements. This suggests that consumer preferences and attitudes towards celebrity-endorsed footwear may be shaped by generational factors, cultural influences, or evolving societal norms. The moderation effect of gender over conative attributes indicates the importance of recognizing and theorizing about the unique responses that male and female consumers may exhibit towards celebrity-endorsed footwear. Theoretical implications include an exploration of the underlying sociocultural factors, psychological motivations, and identity-related aspects that contribute to gender-specific responses. Understanding the intricacies of how celebrity endorsements resonate differently with men and women can enrich theoretical frameworks, providing marketers with insights into crafting gender-tailored strategies that align with diverse consumer expectations. The moderation effect related to

ownership status prompts theoretical considerations around the implications of consumer trust in celebrity endorsements. It suggests that consumers may attribute varying levels of authenticity and credibility to celebrity endorsements based on whether the brand is owned by the celebrity or a third party. Theoretical frameworks in this domain can guide marketers in strategically aligning ownership structures with consumer trust dynamics, enhancing the foundations for effective celebrity endorsement campaigns. Figure 5.2 provides a three-stage structure for engaging with celebrities for effective marketing campaigns. Stage 1 represents hiring celebrities on short term basis for endorsing particular brand or product. Stage 2 represents hiring celebrities as collaborators or partners in brand development. While Stage 3 represents a celebrity owned-celebrity promoted structure which is run by the celebrity.

Figure 5.2 Celebrity engagement model



The strength of this research lies in examining a breadth of variables and producing robust analysis that suggests the importance of shifting from traditional theoretical perspectives to neuroscience based theoretical foundations for celebrity endorsements. The enrichment to the literature that this study makes enables it to be compared, analyzed and assessed in conjunction with few meta-analytical studies that have been performed in this domain. The study results offer an enrichment to Knoll and Matthes (2017) who covered gender of the celebrity endorser as a moderator leaving a gap for analyzing the gender of the respondents as a moderator, which this study fulfils. They did not include neuroscientific corroboration to the results which was performed by this study. Their study was focused upon providing a meta-overview of the studies conducted in the past, while this study has focused on altering the road map of research studies in the celebrity endorsements domain by suggesting the need to bring academic focus towards the product elements in the endorsements over celebrity element.

# 5.3 Practical implications

The research outcomes provide actionable strategies that can be tailored to enhance the effectiveness of celebrity endorsements, considering cognitive, affective, and conative attributes, as well as demographic and ownership dynamics. The following sections provide practical implications that can be useful for managers in developing targeted and effective marketing campaigns.

#### 5.3.1 Strategic marketing decisions

The rejection of H1a and H1b suggests that the cognitive and affective attributes, such as attention, awareness, perception, brand love, and consumer emotions, may not experience a significant boost through celebrity endorsements. Marketers need to carefully consider whether the integration of celebrities aligns with the specific cognitive and affective goals of their campaigns. This challenges the conventional wisdom that celebrity endorsements invariably enhance these attributes. This rejection prompts a re-evaluation of the assumed universal efficacy of celebrity endorsements in bolstering cognitive and affective responses. The theoretical implications extend to questioning whether the integration of celebrities aligns seamlessly with the specific cognitive and affective goals that marketers typically seek to achieve through such endorsements. Marketers need to critically assess whether the utilization of celebrities aligns with the specific objectives of their campaigns related to attention, awareness, perception, brand love, and consumer emotions. This implies that a one-size-fits-all approach to celebrity endorsements may not guarantee the desired cognitive and affective outcomes. This rejection challenges the industry norm that has long assumed a direct and universally positive relationship between celebrity endorsements and cognitive-affective attributes. It signals a paradigm shift, encouraging marketers to evaluate deeper into the intricacies of consumer psychology and the specific mechanisms through which celebrities exert influence over different facets of cognition and emotion.

There arises a need to considering balancing between reliance on selected big celebrity endorsers signed for longer durations or a mix of celebrities engaged for short term duration or a pool of influencers with active following on social media. Strategic marketing decisions should be guided by an understanding that the effectiveness of celebrity endorsements may vary across different cognitive and affective dimensions. Instead of placing sole reliance on a single celebrity to fulfill all the desired outcomes, marketers can strategically curate a mix of endorsers who align with specific campaign objectives. For instance, one celebrity may excel in capturing attention, while another may have a profound impact on fostering brand love or evoking specific consumer emotions. Engaging with multiple endorsers provides marketers with the flexibility to appeal to diverse audience segments. Different celebrities may resonate more strongly with specific demographics, allowing marketers to tailor their messages to distinct target groups. This approach recognizes the heterogeneity in consumer preferences and ensures that the endorsement strategy is inclusive and resonant across a broader spectrum of the audience. Strategic marketing decisions also involve a meticulous assessment of the alignment between each endorser and the product or brand. By carefully selecting endorsers whose attributes align with the cognitive and affective goals of the campaign, marketers can enhance the authenticity and credibility of the endorsements. This builds the effectiveness of the campaign and minimizes the risk of incongruence between the endorser, the brand, and the desired consumer perceptions.

#### 5.3.2 Conative attributes linked product centric marketing

The acceptance of H1c emphasizes the significance of conative attributes, indicating that consumer engagement, purchase intention, brand loyalty, celebrity loyalty, consumer advocacy, and recommendation are positively influenced. Marketers should leverage these conative dimensions to drive consumer actions and build lasting relationships. Product-centric marketing prioritizes genuine consumer engagement by shifting the spotlight from celebrities to the actual product. This approach recognizes that authentic interaction with the product itself cultivates a deeper and more enduring connection with consumers. It aligns with consumer motivations by showcasing the inherent value, quality, and unique features of the product tapping into the essence of

conative attributes, influencing consumers' purchase intentions based on the merits of the product rather than celebrity endorsements. By consistently delivering on consumer expectations and fostering trust through product excellence, brands can secure longterm relationships. This stands in contrast to the potential transience associated with celebrity endorsements, offering a more stable foundation for consumer loyalty. Satisfied consumers, impressed by the product's functionality and value, become authentic brand advocates. The emphasis on word-of-mouth marketing highlights the organic amplification of positive sentiments, reducing the reliance on orchestrated celebrity endorsements. Aligning marketing investments with tangible outcomes is a strategic imperative. Shifting focus from celebrity endorsements to product development, innovation, and customer experience allows brands to optimize resource allocation. This strategic realignment ensures that marketing investments directly impact conative attributes, fostering a more direct and measurable connection between brand efforts and consumer behaviors. For instance, Nike promotes its new collection of Zion3 series as tech integrated basketball shoes to assist the players during bounce and play while at court and during training. The view is supported by Twishy (2012) that consumers do not readily accept Hrithik Roshan promoting Liberty shoes, Salman Khan endorsing Relaxo chappals and Katrina Kaif sponsoring Metro shoes, when in reality they are seen by wearing expensive pairs of Versace or Jimmy Choo.

#### **5.3.3** Targeted age-based strategies

The rejection of H2b and H2c highlights the need for a definitive approach when targeting different age groups. While celebrity endorsements may not inherently be more influential among younger consumers, the acceptance of H2a indicates that cognitive attributes are significantly affected by age moderation. Marketers should tailor their strategies to align with the specific cognitive preferences of different age groups. Managers are therefore suggested to craft strategies that align precisely with the cognitive inclinations of different age groups by examining into the specific cognitive attributes that resonate most strongly with varying generations. For younger consumers, the rejection of H2b suggests that the assumed sway of celebrities may not be as potent in shaping affective attributes. Hence, marketers targeting this

demographic must explore alternative avenues that resonate more authentically, such as emphasizing product features, values, or experiential elements. The rejection of H2c indicates that conative attributes may not be significantly influenced by celebrity endorsements for younger age groups. This insight prompts marketers to explore other motivational factors that drive action among the youth, such as social responsibility, innovation, or peer influence. Therefore, marketers to fine-tune their messaging, ensuring that cognitive appeals align with the distinctive preferences and thought processes of each age cohort. Whether it's emphasizing the technological advancements of a product for younger consumers or highlighting the time-tested reliability for an older demographic, the approach must be tailored to resonate with the cognitive nuances of each group.

#### 5.3.4 Gender specific influences

The rejection of certain hypotheses related to gender challenges assumptions about the universal strength of celebrities in shaping emotional connections and attitudes. It highlights the need for marketers to recognize that the impact of celebrity endorsements may not be universally uniform across diverse consumer demographics. Marketers are advised to evaluate the complex interplay of gender dynamics in consumer behavior. This understanding is important in developing targeted and effective marketing strategies that resonate with the diverse preferences and sensibilities of both genders. Marketers should consider tailoring their campaigns to align with the distinct preferences, values, and aspirations of male and female consumers. This involves not only selecting celebrities who align with the target audience's gender but also crafting narratives and messaging that specifically address the unique interests and concerns of each gender group. For instance, advertisements featuring female celebrities might emphasize elements related to style, fashion, and empowerment, while those with male celebrities could focus on attributes such as performance, durability, or innovation. The study implies the importance of conducting thorough market research to understand the subtle nuances of gender-specific consumer preferences. This could involve employing advanced market segmentation techniques and conducting surveys or focus groups to gather insights into the factors that resonate

most with male and female consumers in the context of celebrity endorsements for footwear. The rejection of assumptions regarding the universal impact of celebrities necessitates a shift toward a more tailored and informed approach in marketing strategies. By recognizing and adapting to the differentiated responses of male and female consumers, marketers can enhance the effectiveness of celebrity endorsements, ultimately maximizing the potential for positive emotional connections and attitudes towards endorsed products in both target demographics.

## 5.3.5 Ownership dynamics

The acceptance of H4a, H4b, and H4c highlights the importance of ownership status in celebrity endorsements. Marketers should consider whether a brand owned by a celebrity or a third-party influences consumer perception differently. Celebrityowned brands may experience a stronger impact on cognitive, affective, and conative attributes, suggesting that emphasizing celebrity ownership can be a strategic advantage. The implications suggest that brands bearing the imprimatur of celebrity ownership wield a distinct influence on consumers, permeating cognitive, affective, and conative facets of their perception. This unique impact may be indicative of a heightened sense of authenticity, relatability, or aspirational association derived from the direct affiliation with a celebrity proprietor. Managers are encouraged to strategically leverage the ownership status of a brand as a differential factor in shaping consumer attitudes and behavior. From a cognitive standpoint, the acceptance of these hypotheses implies that consumers are not only cognizant of the celebrity endorsement but are also attuned to the ownership dynamics surrounding the endorsed brand. This awareness may manifest in enhanced brand recall, increased mental associations, and a more profound integration of the brand into the consumer's cognitive framework. On the affective front, the findings suggest that the emotional resonance generated by celebrity endorsements is amplified when the celebrity assumes the role of the brand proprietor. This heightened affective connection can be harnessed strategically by marketers to foster a deeper emotional bond between the consumer and the brand, potentially leading to increased brand loyalty and positive sentiment. In the conative dimension, the acknowledgment of these hypotheses implies an impact on consumer

behavior, encompassing intentions to purchase, brand advocacy, and overall engagement. Marketers are advised to craft campaigns that highlight the celebrity endorser and provides the ownership connection, thereby strategically influencing consumers' decision-making processes. Marketers may consider launching of celebrity line of products for engaging the positive influence of information about the ownership status of the brand, for instance, One 8 (Puma x Virat Kohli) and Air Jordan (Nike x Michael Jordan).

## 5.3.6 Strategic resource allocation

The examination of direct and indirect effects of celebrity endorsements provides marketers with a sophisticated lens through which they can judiciously allocate resources, steering their strategic efforts towards avenues that yield the most substantial outcomes. The findings support restructuring of traditional resource allocations suggesting marketers to recalibrate their strategies based on the significance of specific dimensions. Non-validation of hypotheses H1a and H1b, signifies a departure from conventional emphasis on attention and awareness in celebrity endorsements. The rejection of H1a and H1b serves as a juncture for marketers to reassess the allocation of resources dedicated to leveraging celebrities in promotional endeavors. Rather than disproportionately investing in these aspects, the study propounds a shift towards concentrating on the motivational and behavioral dimensions growing from product usage as delineated in H1c. This redirection of focus involves providing higher allocation towards portraying the science involved behind product development, the people involved in bringing the product to the markets and the product and the brand itself. This recalibration aligns with the understanding that, in celebrity endorsements, it is not just the quantum of attention garnered but the qualitative and transformative nature of that attention that holds more importance.

#### 5.3.7 Integration of neuroscientific contributions

The inclusion of neuroscience elements, particularly the eye tracking technology in Study2, introduces a dimension to practical implications. The positive

effect observed in total visit duration, indicating that the more consumers viewed celebrity endorsements, the higher their average viewing duration towards the advertisement, underscores the potential of leveraging neuroscience for a more in-depth understanding of consumer preferences. The positive correlation between total visit duration and increased engagement with celebrity endorsements implies that visual stimuli, when strategically presented, can captivate consumers and prolong their interaction with promotional content. By leveraging eye-tracking technology, managers can examine what captures consumers attention and how the duration of that attention correlates with positive perceptions and potential actions. This understanding enables optimizing the visual components of marketing campaigns, tailoring them to elicit sustained engagement and, consequently, enhance the effectiveness of celebrity endorsements. In an era where digital presence is paramount, understanding the neuroscientific nuances of how consumers engage with celebrity endorsements online can be a game-changer. Neuroscientific methods can serve as advanced metrics for measuring the success of marketing campaigns. Their results go beyond self-reported feelings, providing more accurate understanding of the emotional impact of advertisements, product placements, or brand imagery. Marketers can tailor content to evoke specific emotions aligned with brand objectives. Neuroscientific studies can further evaluate how well marketing messages are encoded into long-term memory. Understanding the neural mechanisms involved in memory formation can guide marketers in creating more memorable and impactful campaigns.

## 5.3.8 Personalised marketing strategies

Neuroscientific data can usher in a new era of personalized marketing strategies that are finely attuned to individual visual preferences. The analysis of eye tracking patterns across diverse consumer segments provides marketers with understanding of how different groups engage visually with celebrity endorsement campaigns. By examining neuroscientific data, marketers can identify variations in patterns among different cultural or demographic groups. This knowledge allows for the customization of visual elements within celebrity endorsements to align with the unique preferences of each segment. For example, understanding that certain demographics may be more

drawn to specific visual cues or storytelling styles enables the crafting of culturally relevant and resonant campaigns. By correlating eye tracking data with emotional arousal, marketers can gain a deeper understanding of how specific visual elements evoke emotional reactions in diverse consumer groups. This emotional dimension can be harnessed to tailor celebrity endorsement campaigns that not only capture attention visually but also elicit the desired emotional responses, fostering a more profound and memorable connection between the brand, the celebrity endorser, and the audience. This level of granularity enables marketers to understand the unique visual cues that resonate with each consumer, leading to hyper-personalized campaigns that cater to individual preferences. This approach aligns with the growing demand for personalized content experiences, fostering a stronger sense of connection and relevance for each consumer.

#### 5.4 Research limitations

Research limitations include the challenges that were faced while performing the research. These limitations acknowledge the boundaries of the research design, methodology, or data collection process, and they highlight areas where the study exercised caution. Identifying research limitations is an aspect of scholarly inquiry, as it demonstrates the researcher's transparency and integrity. It helps readers and other researchers understand the context in which the study was conducted and the extent to which the findings can be confidently applied to broader situations. This study performed experimental analysis (Study1) and neuroscience analysis (Study2). The following sections explain the limitations pertaining to both the studies.

# 5.4.1 Study1 (Structural equation modelling) limitations

Studyl (Structural equation modelling) focused on the relationship between celebrity endorsements in the footwear industry and consumer preferences. It performed experimental analysis with structural equation modelling to perform data analysis. Experiments typically involve structured tasks and predefined stimuli,

limiting the examination of real-time and dynamic consumer responses. Consumer preferences may evolve dynamically in real-world situations due to various external factors, and experimental analyses may not capture these nuanced, time-dependent changes. Experimental outcomes can be sensitive to the specific conditions of the study, including the chosen stimuli, tasks, and the context provided. Participants in experimental settings may alter their behavior. Participant bias might come into play as individuals may consciously or unconsciously modify their responses. While experiments aim to control specific variables to isolate causal relationships, control over several extraneous variables may be challenging. Conducting experimental analyses can be resource-intensive in terms of time, funding, and expertise. The constraints on resources may limit the scale and scope of experiments, potentially impacting the breadth and depth of the research findings. To address the concerns, this study incorporated ecologically valid designs. This involved using stimuli and tasks that more closely resembled consumers' natural interactions with celebrity endorsements in everyday life. Increasing the diversity of stimuli and experimental conditions helped mitigate the sensitivity of experimental outcomes to specific setups. Including a range of stimuli, varying contextual factors, and testing under different conditions enhanced the generalizability of findings across diverse scenarios. The study employed strategies to minimize demand characteristics and participant bias. This included carefully designing experimental instructions, debriefing participants effectively. Maintaining transparency about the study's objectives reduced the likelihood of participants altering their behavior based on perceived expectations. The study prioritized the well-being and informed consent of participants, ensuring that experimental manipulations are ethically sound. Open communication, debriefing procedures, and adherence to ethical guidelines contributed to the integrity of the research. Random assignment of participants to experimental conditions helps control for potential confounding variables, strengthening the ability to draw causal inferences from the observed effects. To address concerns about the homogeneity of samples, the study aimed for diverse participant recruitment. Including participants from varied demographics, cultural backgrounds, and consumer segments ensured that experimental findings are more representative and applicable to a broader population.

While resource constraints were inevitable, the study tried to optimize available resources by carefully planning study designs, utilizing innovative technologies.

## 5.4.2 Study2 (Eye tracking analysis) limitations

Study2 (Eye tracking analysis), employed a controlled laboratory-based approach with the use of eye tracking technology to examine the neuroscience components of consumer preferences. The study was conducted through participants webcam in a laboratory setting. Consumer preferences observed in a laboratory setting may not fully replicate the complexities of decision-making processes that occur in naturalistic settings. Engaging in neuroscience research, particularly utilizing advanced tools like EEG (Electroencephalography) and fMRI (Functional Magnetic Resonance Imaging), poses a significant financial challenge. The acquisition and maintenance costs associated with these cutting-edge technologies often place them beyond the financial reach of many researchers and institutions. EEG, a method measuring electrical brain activity, and fMRI, a technique visualizing blood flow in the brain, have precision in capturing neural responses. However, the high costs of purchasing and maintaining these devices, along with the need for specialized personnel to operate and interpret the results, create financial barriers for researchers and institutions with limited budgets. The cost implications extend beyond the initial equipment purchase. Regular maintenance, software updates, and ongoing training for researchers to effectively utilize these tools further contribute to the financial strain. The need for dedicated space with controlled environmental conditions adds another layer of expense, making the establishment and upkeep of a neuroscience laboratory a substantial investment. Neuroscience study primarily assesses short-term engagement patterns limiting the ability to extend the analysis to cover long-term effects on consumer preferences with budgetary constraint and limited time frame. Understanding the enduring impact of celebrity endorsements on consumer decision-making can be performed with a longitudinal approach across a larger time frame but that requires substantial resource allocation in terms of funds, space and time. To address the identified limitations and enhance the robustness of the study, several strategies and methodological considerations were implemented. Overcoming the limitation of a

singular methodology, the study integrated neuroscientific methods with experimental analysis for visualizing neural responses and providing more comprehensive understanding of the cognitive and emotional dimensions. To mitigate the controlled stimulus environment limitation, complementing laboratory-based analyses with real-world observational studies or field experiments through webcam-based approach provide a more nuanced understanding of consumer interactions with celebrity endorsements.

#### 5.5 Conclusion

The study, comprised of two distinct approaches, combined experimental analyses and neuroscientific investigations to explore cognitive, affective, and conative attributes associated with celebrity-endorsed advertisements in footwear industry. The experimental analysis (Study1) explored the relationship between celebrity endorsements and consumer preferences through the lens of consumer psychology. It explored the influence of celebrity endorsements on consumer preferences as measured through cognitive attributes, affective attributes and conative attributes. The neuroscientific investigation (Study2) examined the neuroscience components of consumer preferences by focusing on visual engagement. Employing eye tracking technology, the research traced participants' gaze patterns and fixation points as they encountered stimuli featuring celebrity-endorsed advertisements. This methodology allowed for examination of where and how individuals directed their visual attention when exposed to advertisements. Such neuroscientific examination of the influence of celebrity endorsements upon consumer psychology is a major gap in academic domain and requirement of the industry. Despite the ubiquity of celebrity-driven advertising campaigns and being a go-to marketing strategy, a noticeable dearth of comprehensive studies exists that thoroughly evaluate the multifaceted impact these endorsements have on the intricate workings of consumer minds. In the ever-evolving landscape of marketing and consumer behavior, the power wielded by celebrities in shaping consumer preferences, attitudes, and behaviors is undeniable. However, the academic exploration of this phenomenon has been relatively scarce, leaving a considerable void

in our understanding of the underlying psychological mechanisms at play. The need for a robust body of research in this area is underscored by the dynamic nature of consumer trends, which are continually influenced by an evolving cast of celebrity endorsers across diverse industries. Limited studies that have ventured into this academic area often fall short of providing a comprehensive examination, frequently focusing on isolated aspects of consumer response such as purchase intention or brand loyalty. A holistic understanding of the psychological intricacies involved in celebrity endorsements is essential for both academia and industry practitioners. This void in research hinders the development of nuanced theories and models that could guide marketing strategies and advertising practices in a more informed and targeted manner.

Further, the examination of the influence of celebrity endorsements has primarily been conducted in Western countries, with limited exploration in India. Being the fifth-largest economy globally, the Indian economy is actively undertaking major advertising campaigns involving celebrities signed at significant sums of money. Without up-to-date empirical evidence of the reasons for success or failure of celebrity endorsements, such massive celebrity endorsement deals may not be the solution for effective marketing strategies. This significant gap in research becomes particularly pronounced when considering the rapidly evolving dynamics of consumer behavior in India, a nation characterized by diverse demographics, cultural nuances, and rapidly increasing consumption-expenditure scenario. Herein, the footwear industry in particular has been selected as the target industry for this study as Indian footwear industry emerges as a pivotal sector, often regarded as the face of the future in the country's economic landscape. As a sector that reflects changing lifestyle choices, fashion trends, and consumer aspirations, the footwear industry is tied to the evolving narrative of India's economic growth. The industry's increasing emphasis on neuroscience and the promotion of product science introduces a layer of complexity that demands nuanced exploration. While companies are leveraging scientific principles in product development and marketing strategies, the application of neuroscience studies to comprehend the intricacies of consumer responses to celebrity endorsements remains absent. This study, therefore, assumes significance as it seeks to

fill this void in research. By exploring the footwear industry, it addresses the lacuna in neuroscience studies related to consumer behavior and also contributes to shaping the trajectory of future marketing practices in India. The unique blend of traditional values and modern aspirations, coupled with the economic prowess of India, positions this study as a step toward fostering a more comprehensive understanding of the interplay between celebrity endorsements and consumer psychology in this dynamic and vibrant market.

The cognitive attributes, such as consumer attention and awareness, did not show a significant positive impact in celebrity-endorsed advertisements compared to non-celebrity endorsed counterparts. Contrary to the hypothesized positive effect on affective attributes, the study found no substantial evidence supporting the idea that celebrity endorsements enhance consumer attitudes toward the ad, object, brand love, celebrity love, or emotions compared to non-celebrity endorsements. However, conative attributes, including consumer engagement, purchase intention, brand loyalty, celebrity loyalty, consumer advocacy, and recommendation, demonstrated a positive effect in favor of celebrity endorsements. Study2 findings indicated the positive impact of celebrity endorsements on consumer preferences, as reflected in increased visual attention. This augmentation in visual attention is indicative of the captivating nature of celebrity endorsements, suggesting that these endorsements hold potential to capture the immediate attention of consumers. The study's ability to examine increased visual attention highlights the neurocognitive significance of celebrity endorsements, and allows looking into the neurological pathways through which these endorsements affect the individual outlook towards advertisements. The neuroscientific analysis indicated that the presence of celebrity endorsements did not yield a statistically significant impact upon the cognitive attributes. This suggests that, neurologically, participants exhibited comparable levels of cognitive engagement regardless of whether the advertisements featured celebrities or not. The findings indicate that as the footwear industry becomes more product-oriented, there is an increased focus on the quality, design, and functionality of footwear. Companies are investing in innovative designs, materials, and technologies to enhance the overall product experience, recognizing that consumers are placing increasing importance on the intrinsic value of the footwear itself. A product-oriented approach necessitates a deep understanding of consumer needs and preferences. This shift ensures that products resonate more effectively with the target audience. Moving away from a celebrity-centric focus allows footwear companies to diversify their product lines more effectively. Instead of relying solely on the endorsement power of celebrities, brands can introduce a broader range of products catering to various consumer segments, occasions, and lifestyle preferences. A productoriented strategy contributes to building brand identity around the excellence and uniqueness of the footwear itself. Brands are likely to emphasize craftsmanship, technological innovations, and distinctive features that set their products apart, thereby establishing a strong and differentiated brand image. With the industry's growing emphasis on product science, companies are leveraging technological advancements to enhance the performance, comfort, and durability of footwear. Incorporating scientific principles in product development and marketing communications reinforces the credibility of brands, positioning them as leaders in the realm of innovation. A shift towards a product-oriented focus diminishes the industry's reliance on celebrity endorsements as the primary driver of consumer interest. While celebrities may still play a role in brand promotion, the intrinsic value of the product takes center stage, reducing vulnerability to fluctuations in celebrity popularity. Consumers, now presented with a product-oriented market, are likely to make more informed choices based on the features, benefits, and overall value of the footwear. This shift empowers consumers to prioritize their preferences, contributing to a more discerning and empowered consumer base. A product-oriented approach allows footwear companies to be more agile and responsive to rapidly changing consumer trends. By staying attuned to shifting preferences, brands can adjust their product offerings swiftly, ensuring they remain relevant in the ever-evolving fashion landscape.

The earlier studies had predominantly focused on assessing the broad categories of positive, negative, or neutral impacts of celebrity endorsements on sales, this study represents a significant leap forward, transcending the boundaries of mere meta-analysis. It introduces a pioneering approach that has the potential to reshape the

designing celebrity endorsements by integrating neuro-analysis. Traditionally, studies in this domain often relied on quantitative measures and statistical analyses to assess the overall impact of celebrity endorsements on sales figures. While such meta-analyses provided valuable insights, they could not identify the underlying cognitive and emotional processes behind consumer responses to these endorsements. By exploring the neural intricacies associated with celebrity endorsements, the study aims to assess the underlying cognitive, affective, and conative dimensions that contribute to consumer preferences and decision-making processes. This represents a shift, moving beyond the surface-level impact assessments to evaluate the deeper neurological cues that influence consumer choices. These findings challenge conventional expectations and allows exploration into the mechanisms through which celebrities shape consumer preferences. The study provides scope for future research endeavors, about underlying neurocognitive processes that differentiate cognitive, affective, and conative responses to celebrity endorsements. Such insights are relevant for marketers and advertisers aiming to refine their strategies and tailor their approaches to align with the multifaceted nature of consumer decision-making.

### 5.6 Scope for future research

The findings and methodologies of the current study contribute valuable insights to the field of celebrity endorsements in the footwear industry and also open up research opportunities. The following sections explain the scope for future researches.

### 5.6.1 Longitudinal Studies

Conducting longitudinal studies could provide a deeper understanding of the enduring impact of celebrity endorsements on consumer preferences. Tracking consumer responses over an extended period would unveil trends, fluctuations, and the sustainability of the neuro-scientifically observed effects. By tracking neuroscientific data longitudinally, researchers can examine the trends, fluctuations, and sustainability

of these effects over time. This approach facilitates a nuanced exploration of how the neural responses to celebrity endorsements evolve across distinct phases of consumer psyche. One of the primary advantages of longitudinal studies lies in their ability to capture the sustainability of neuro-scientifically observed effects. This entails examining whether the positive impact of celebrity endorsements endures or diminishes over time, providing insights into the enduring effectiveness of such marketing strategies. Longitudinal research enables the identification of trends and fluctuations in neuroscientific responses, examining how external factors, cultural shifts, or changes in celebrity statuses contribute to the evolving landscape of consumer preferences. Researchers can examine how well consumers retain and recall celebrity-endorsed content, offering insights into the longevity of the associations between celebrities and brands. The dynamic nature of consumer behavior, subject to seasonal and cyclical influences, becomes apparent through longitudinal analysis, allowing researchers to examine variations in neuroscientific responses tied to specific times, holidays, or other cyclical patterns. By identifying correlations between external events and neuroscientific responses, these studies contribute to a contextual understanding of the factors influencing the effectiveness of celebrity endorsements.

### **5.6.2** Comparative Cross-Industry Analysis

Extending the research to encompass multiple industries would facilitate a comparative cross-industry analysis. Investigating whether the neuroscientific impact of celebrity endorsements varies across sectors could unveil industry-specific patterns and consumer responses, contributing to a more comprehensive understanding. By broadening the scope, this extension may investigate whether the neuroscientific impact of celebrity endorsements exhibits variations across diverse sectors. Each industry operates within a unique ecosystem, characterized by distinct consumer behaviors, expectations, and market dynamics. Exploring the potential industry-specific patterns in neurocognitive responses to celebrity endorsements holds the promise of evaluating insights that can significantly contribute to a more comprehensive understanding of this complex phenomenon. Comparing and contrasting the neuroscientific impact across industries could reveal whether certain types of celebrities or endorsement strategies

resonate more effectively in specific sectors. Industry-specific consumer preferences and brand expectations may shape the neurocognitive pathways activated during exposure to celebrity endorsements. Therefore, a cross-industry analysis becomes may identify commonalities and differences, providing a more nuanced and tailored approach for marketers and advertisers crafting celebrity endorsement strategies.

#### 5.6.3 Global cultural variances

Exploring how cultural nuances influence the neurocognitive responses to celebrity endorsements could examine the universality or specificity of the observed effects. Cultural nuances include factors such as values, beliefs, traditions, and societal norms which contribute to shaping consumer attitudes and behaviors. Understanding how these cultural elements intersect with the neural processes triggered by celebrity endorsements can provide an understanding of the mechanisms at play. A celebrity who is revered in one culture may not elicit the same neurocognitive responses in another where values and preferences differ. Comparative studies could involve analyzing neuroscientific data from participants across various regions, exploring how cultural variations influence the salience of celebrity endorsements in shaping consumer preferences. This research could extend beyond the neuroscientific design to include qualitative methodologies, such as interviews or focus groups, to capture the subtleties of cultural nuances. The outcomes of such research hold implications for global marketing strategies, as they could inform brands about the adaptability or customization required in celebrity endorsement campaigns for different cultural markets. Understanding cultural-specific neural patterns could contribute to the development of a more culturally sensitive and resonant approach to celebrity endorsements, enhancing their effectiveness across diverse global audiences.

## 5.6.4 Integration of influencer marketing

Investigating the impact of influencer marketing in the age of social media and digital platforms presents a contemporary research opportunity. Analyzing how neuroscientific responses evolve in the digital landscape and how they compare with

the research on celebrity endorsements could offer insights into the changing dynamics of consumer engagement. In the digital landscape, consumers are inundated with a constant stream of information, making it imperative to comprehend how influencer marketing cuts through the digital noise and captures attention at a neurological level. Exploring the neuroscientific responses to influencer-generated content can help understand the mechanisms that drive consumer trust, authenticity perception, and emotional resonance. Understanding how neural responses adapt to the nuances of digital influencer interactions such as on YouTube, X (Twitter) or Instagram contributes to a more holistic comprehension of the factors that determine the effectiveness of influencer marketing campaigns.

# 5.6.5 Neuro-analysis of celebrity – brand fit

Exploring the neurocognitive aspects of celebrity-brand fit could provide insights into why certain celebrities are more effective endorsers for specific brands. Understanding the neural mechanisms that contribute to perceived compatibility could inform strategic celebrity endorsements. The concept of celebrity-brand fit depends on the perceived compatibility between a celebrity endorser and the values, image, and identity of a brand. Understanding the neural mechanisms that contribute to this perceived compatibility holds the key to refining and optimizing strategic celebrity endorsements. Exploring the neurocognitive dimensions of this fit involves understanding the subconscious processes that underlie consumer perceptions of compatibility. By utilizing neuroscientific methodologies, researchers can explore the neural pathways activated when consumers encounter a celebrity endorsing a particular brand. This exploration may involve analyzing neuroscientific data from participants exposed to various combinations of celebrities and brands, teasing apart the neural responses that indicate a sense of congruence or incongruence. Neuroscientific techniques can offer insights into the regions of the brain associated with positive emotional responses, trust, and resonance, all crucial components of the celebrity-brand fit. The outcomes of such research could inform marketers about the neurocognitive factors influencing consumers' perceptions of fit. It could reveal whether specific brain regions associated with trust, emotional connection, or authenticity are activated more

strongly when a particular celebrity endorses a brand. This knowledge is instrumental in guiding strategic decisions about which celebrities to align with specific brands to enhance resonance and credibility.

### 5.6.6 Integration of advanced neuroscientific technologies

Leveraging advanced neuroscientific technologies, such as functional Magnetic Resonance Imaging (fMRI) or Electroencephalography (EEG), could offer a more detailed examination of neural processes. These technologies could provide a deeper understanding of brain regions activated during exposure to celebrity endorsements. Functional Magnetic Resonance Imaging (fMRI) stands out as a powerful tool in this exploration, offering a non-invasive means to measure and map brain activity. By capturing detailed images of brain regions, fMRI enables researchers to pinpoint specific areas that become active in response to celebrity endorsements. This method allows for a spatial understanding of neural engagement, shedding light on the precise brain regions associated with emotional responses, memory formation, and cognitive processing during exposure to these endorsements. EEG excels in capturing the temporal dynamics of neural responses, offering insights into the rapid succession of cognitive and emotional reactions. This technology is particularly adept at revealing the timing and sequence of neural events, providing a nuanced understanding of how consumers process information when exposed to celebrity endorsements. Together, fMRI and EEG create a synergistic approach, offering both spatial and temporal perspectives on neural processes. This dual methodology allows researchers to not only identify which brain regions are activated but also discern the sequence and timing of these activations. For example, fMRI may reveal heightened activity in regions associated with emotional processing, while EEG concurrently captures the rapid succession of neural events leading to that emotional response. The application of these advanced neuroscientific technologies extends the research beyond mere behavioral responses to uncover the subconscious cognitive and emotional mechanisms at play. It offers a more comprehensive understanding of the neural intricacies that contribute to the effectiveness of celebrity endorsements, guiding marketers in crafting strategies that resonate at a profound neuroscientific level.

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#### **ANNEXURE**

# INFLUENCE OF CELEBRITY ENDORSEMENTS IN FOOTWEAR INDUSTRY ON CONSUMER PREFERENCES





#### Gender:

a) Male

b) Female

c) Transgender

#### Age:

a) 18-24

b) 25-34

c) 35-44

d) 45-54 e) 55 and above

#### **Education:**

a) High school or less

b) Bachelor's Degree or c) Master's Degree d) Doctoral

equivalent

or equivalent

#### Family income (annual):

a) Less than b) Rs. 2,50,001 - Rs. c) 5,00,001 - d) 10,00,001 - e) 25,00,001 or

Rs. 2,50,000

5,00,000

Rs. 10,00,000

Rs. 25,00,000

more

### Occupation:

a) High school or less

b) Bachelor's Degree or c) Master's Degree d) Doctoral

equivalent

or equivalent

## Are you aware about the ownership of the brands that you purchase?

a) Yes

b) No



After viewing the above advertisements suggest, if you would have known about the ownership details of these brands, would your purchase decision have been different?

a) Yes b) No

On a scale of 1(Strongly disagree) to 5 (Strongly agree), please rate the following:

## I. Attractiveness of the Celebrity

No.	Question	Strongly	Disagree	Neutral	Agree	Strongly
		disagree				agree
1	Celebrities in footwear ads are					
	attractive					
2	Celebrities in footwear ads are					
	well-known faces					
3	Celebrities in footwear ads are					
	beautiful					

4	Celebrities in footwear ads are			
	elegant			

## II. Credibility of the Celebrity

No.	Question	Strongly	Disagree	Neutral	Agree	Strongly
		disagree				agree
1	Celebrities in footwear ads are					
	trustworthy					
2	Celebrities in footwear ads are					
	experts					
3	Celebrities in footwear ads are					
	experienced					
4	Celebrities in footwear ads are					
	qualified					
5	Celebrities in footwear ads are					
	skilled					

## III. Celebrity product congruency

No.	Question	Strongly	Disagree	Neutral	Agree	Strongly
		disagree				agree
1	Personality of the Celebrities					
	match with the footwear					
	products that they endorse					
2	Celebrities endorse those					
	footwear products which					
	matches their comfort level					
3	Celebrities in footwear ads					
	relate to the products that they					
	are endorsing					
4	I believe that celebrity's					
	attributes and product's					
	features should be connected					

5	The alignment between		
	endorsers field and product		
	attributes stimulate my		
	attitude towards the brand		

# IV. Cognitive attributes

No.	Question	Strongly	Disagree	Neutral	Agree	Strongly
		disagree				agree
1	I remember celebrity endorsed					
	footwear advertisements that I					
	see					
2	I find those footwear ads to be					
	more effective which have a					
	celebrity in them					
3	I can recognize a brand of a					
	footwear product if it's					
	marketing ad had a celebrity					
	in it					
4	I find the celebrity endorsed					
	footwear ads to be informative					
5	I find the celebrity endorsed					
	footwear ads to be interesting					
6	I give more attention to					
	celebrity endorsed					
	advertisements than non-					
	celebrity endorsed					
	advertisements					

## V. Affective attributes

No.	Question	Strongly	Disagree	Neutral	Agree	Strongly
		disagree				agree
1	I feel celebrity-endorsed					
	footwear brands are of good					
	quality					
2	I like celebrity-endorsed					
	footwear ads					
3	The brand that I purchase is					
	totally awesome					
4	I love the celebrity who					
	endorses footwear brands					
5	I am a fan of my favorite					
	celebrity					
6	I feel ads featuring celebrity					
	endorsers are good					

## VI. Conative attributes

No.	Question	Strongly	Disagree	Neutral	Agree	Strongly
		disagree				agree
1	I will purchase celebrity					
	endorsed footwear brands					
2	I will stop buying a footwear					
	brand if my favorite celebrity					
	endorsing it gets involved in a					
	scandal					
3	I am loyal to the brands					
	endorsed by my preferred					
	celebrity					
4	I will buy a footwear product					
	if my favorite celebrity is					
	endorsing it					

5	I will buy a footwear product			
	just because my favorite			
	celebrity is using it			
6	In a retail store, I would			
	actively search for celebrity-			
	endorsed brands / products			

Any suggestion:

Thank you for your participation

## LIST OF PUBLICATIONS

S. No.	Title of the research paper	Journal	Vol. and Issue No.	Indexing
1	Evaluating the Impact of Influencer Following on the level of Social Media Engagement	Journal of Global  Business and  Technology	19(2)	Scopus, UGC-CARE
2	The Impact of celebrity Endorsers and Influencer Marketers on Consumer Behaviour	Journal of Cultural  Marketing Strategy	8(1)	Scopus, UGC-CARE
3	Analyzing Influence of Attractiveness and Credibility of the Celebrity Upon Ad Recall and Purchase Intention of the Consumer	Journal of Namibian Studies	33(3)	Scopus, UGC-CARE